

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Akihiro NITAYAMA et al.

Serial No: 09/660,390

Filed: September 12, 2000

For: DYNAMIC SEMICONDUCTOR MEMORY DEVICE HAVING
A TRENCH CAPACITOR AND METHOD OF MANUFACTURING
THE SAME

Group Art No. 2814

Examiner: H. Weiss

Docket No. 000629.00002

11/F/D
7/16/2
Linder

SUBMISSION OF CORRECTED FORMAL DRAWINGS

Assistant Commissioner for Patents
Washington, D.C. 20231

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TECHNOLOGY CENTER 2800

Sir:

In accordance with the final Office Action dated May 1, 2002, submitted herewith are fifty-four (54) sheets of formal corrected drawings (Figs. 1a-33). These drawings include the changes to Figs. 1a, 1b, 2a and 2b, as set forth in the proposed drawing correction filed March 18, 2002, which were approved in the final Action.

Respectfully submitted,

SLD #42,402
For Joseph M. Potenza
Registration No. 28,175

BANNER & WITCOFF, LTD.
1001 G Street, N.W., 11th Floor
Washington, D.C. 20001
(202) 508-9100

Date: July 1, 2002

Figure 1A

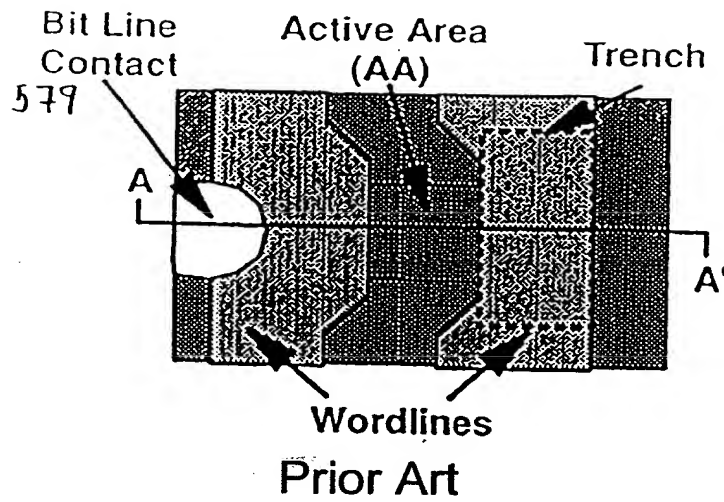
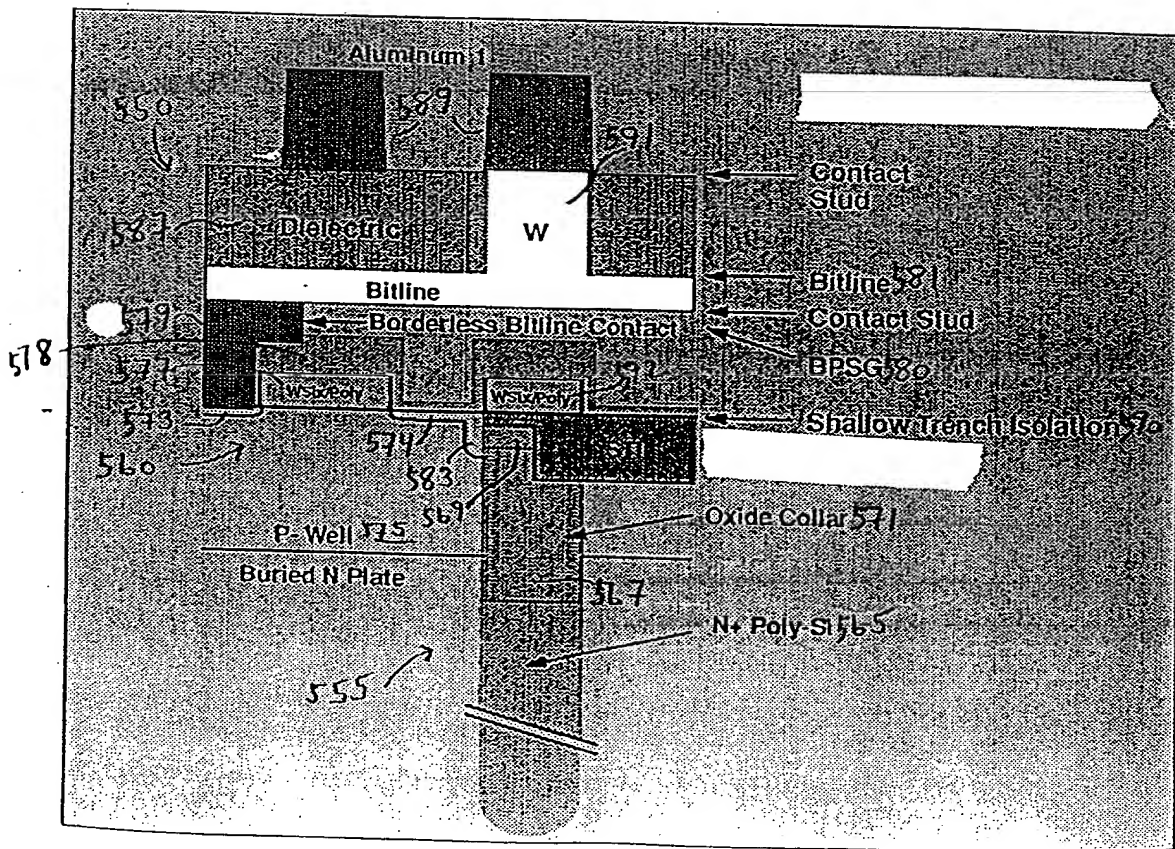


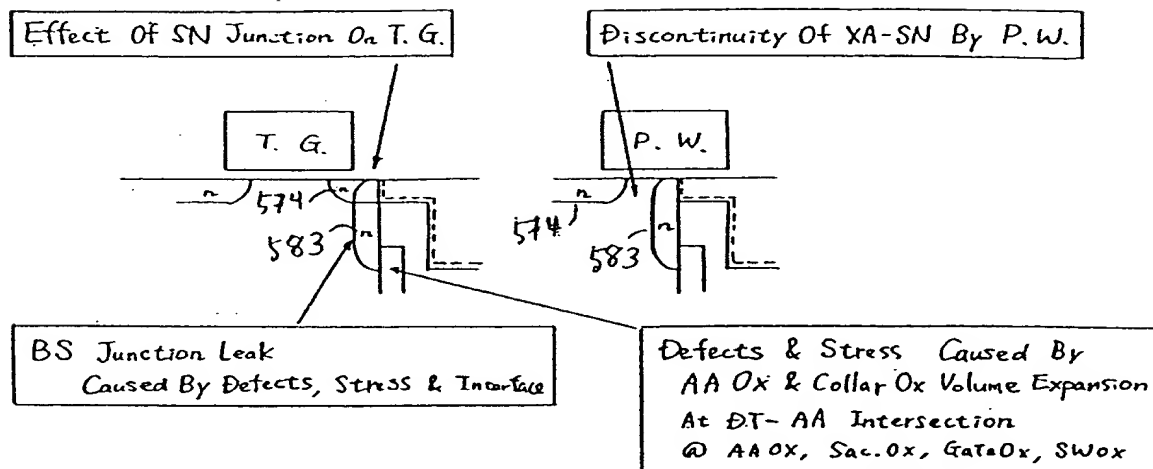
Figure 1B



Prior Art

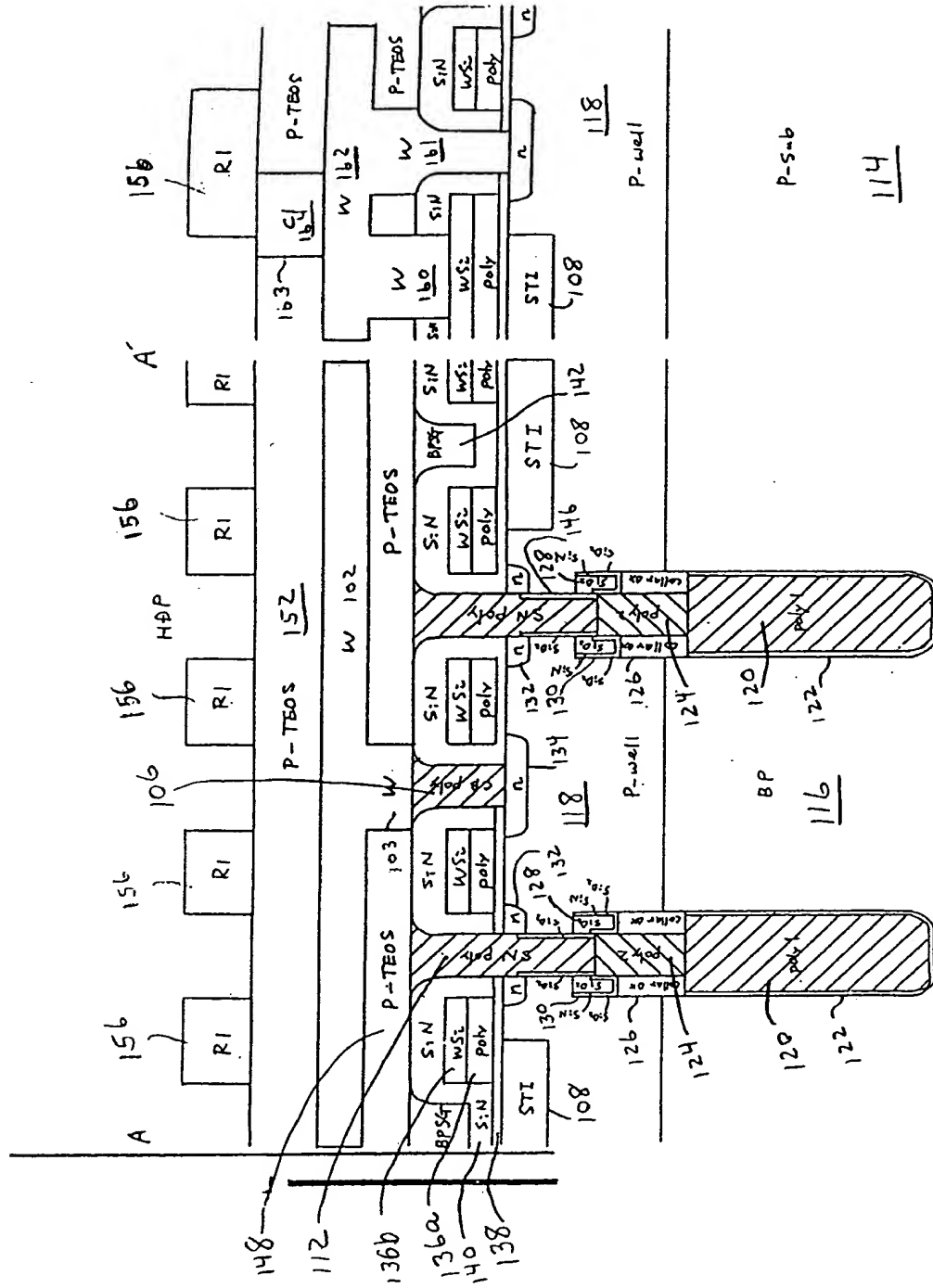
Figure 2A

Figure 2B



Prior Art

Figure 4A



— Cell Array —

— Support Circuit —

ДОН

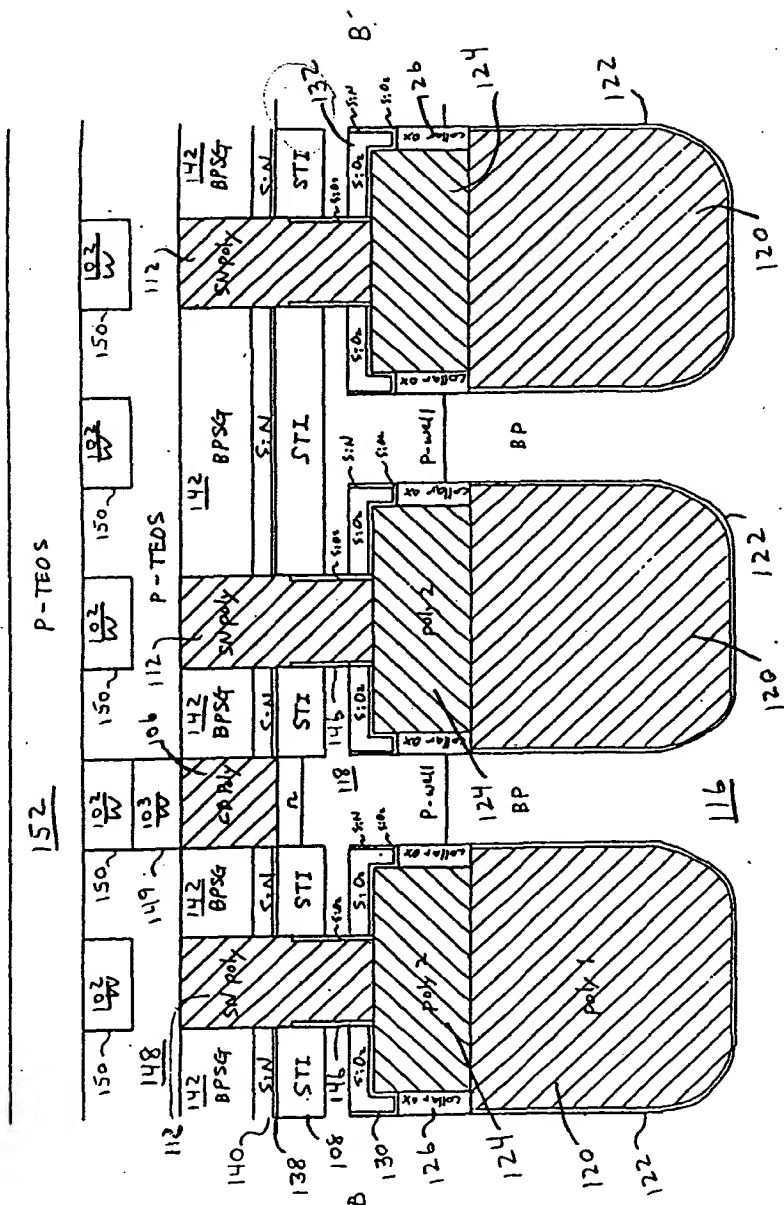


Figure 5A

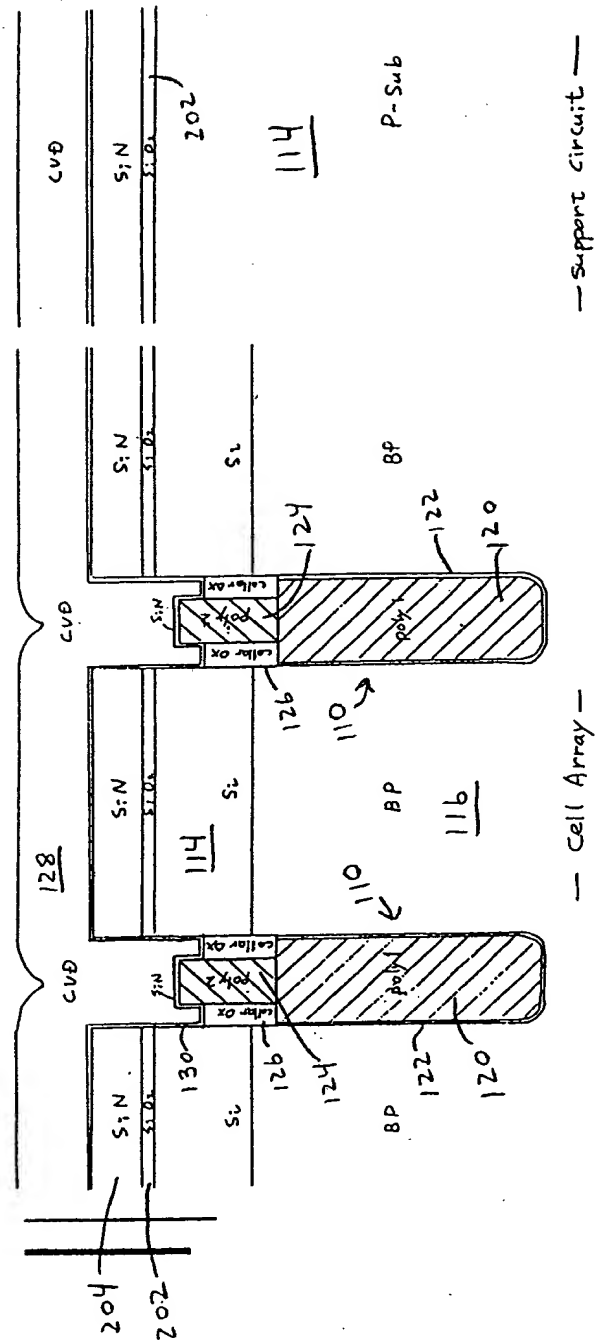


Figure 5B

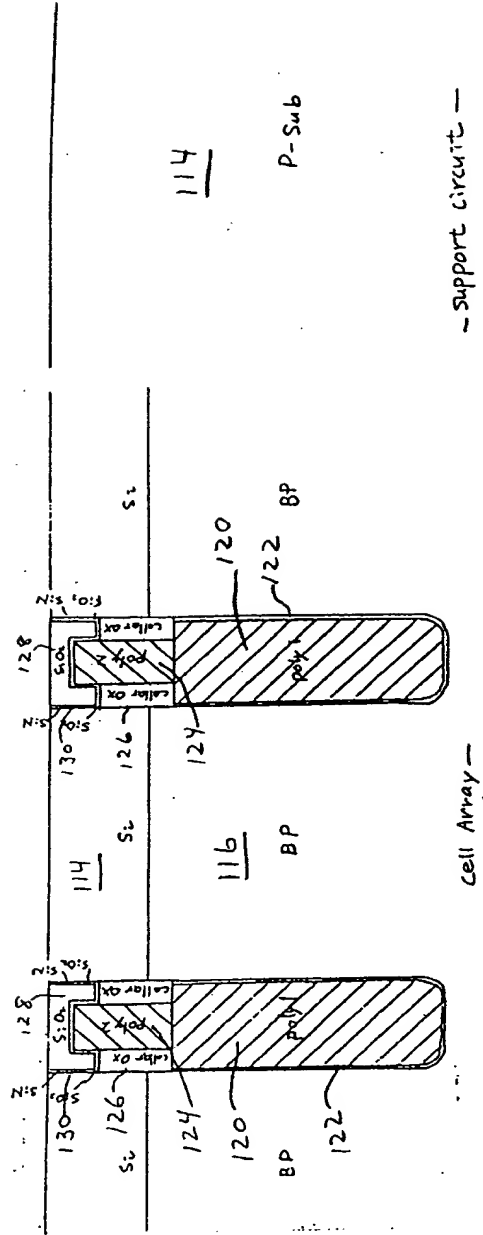


Figure 5C

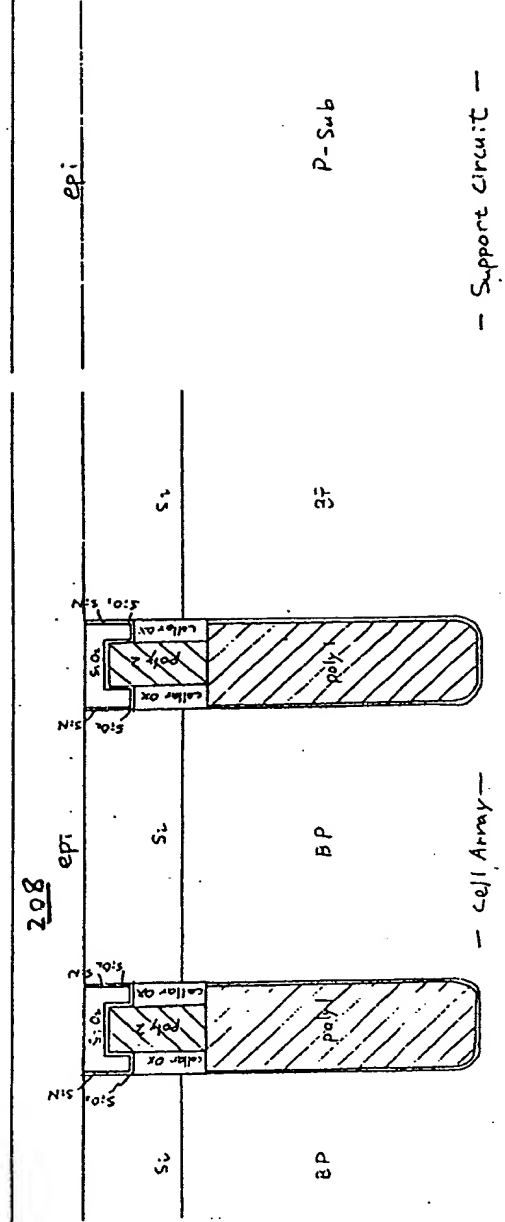


Figure 5D

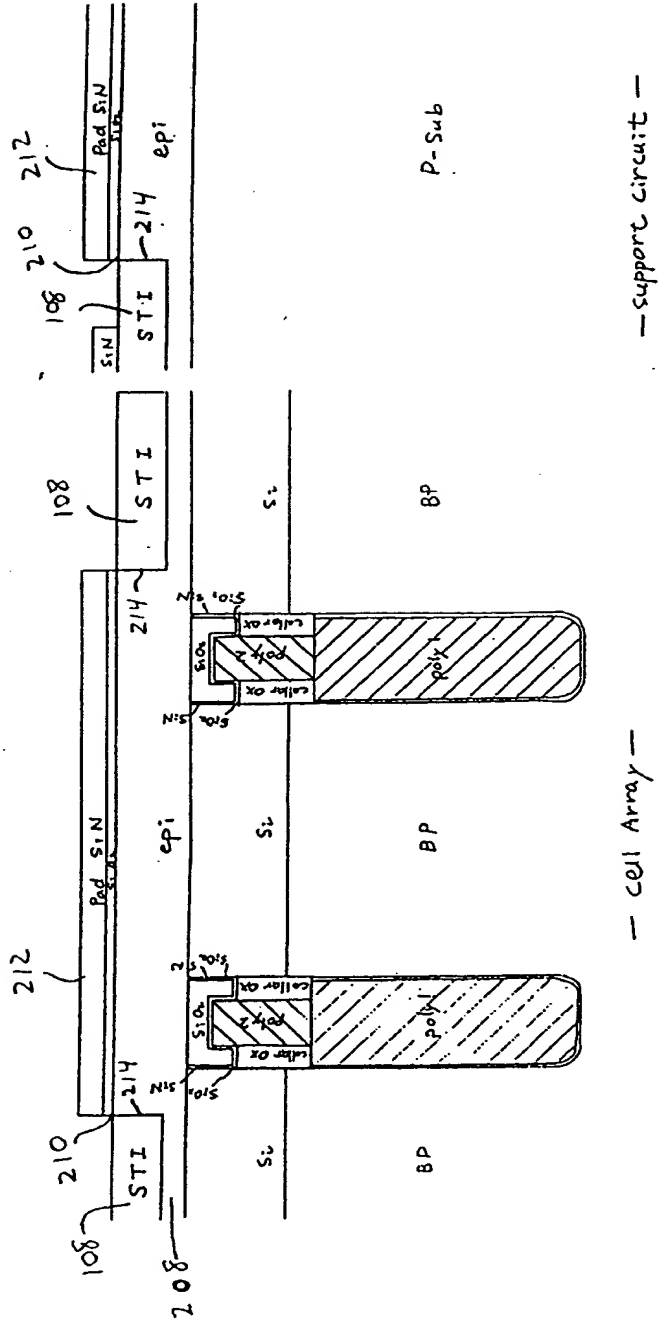
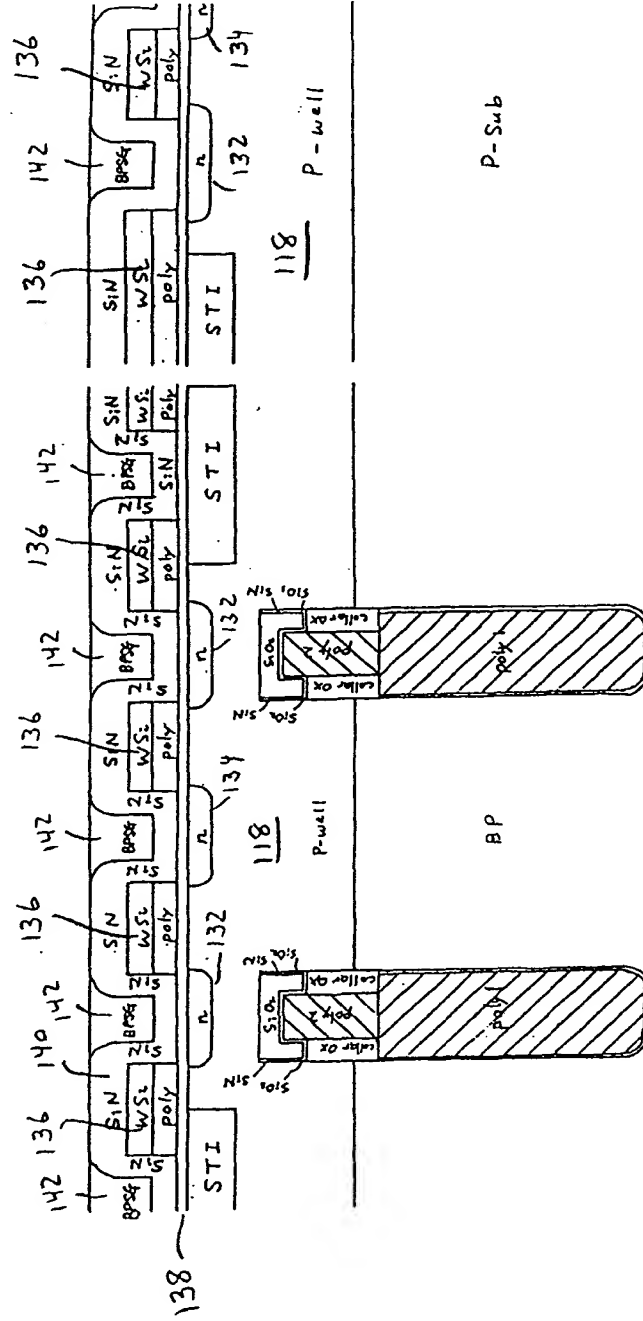


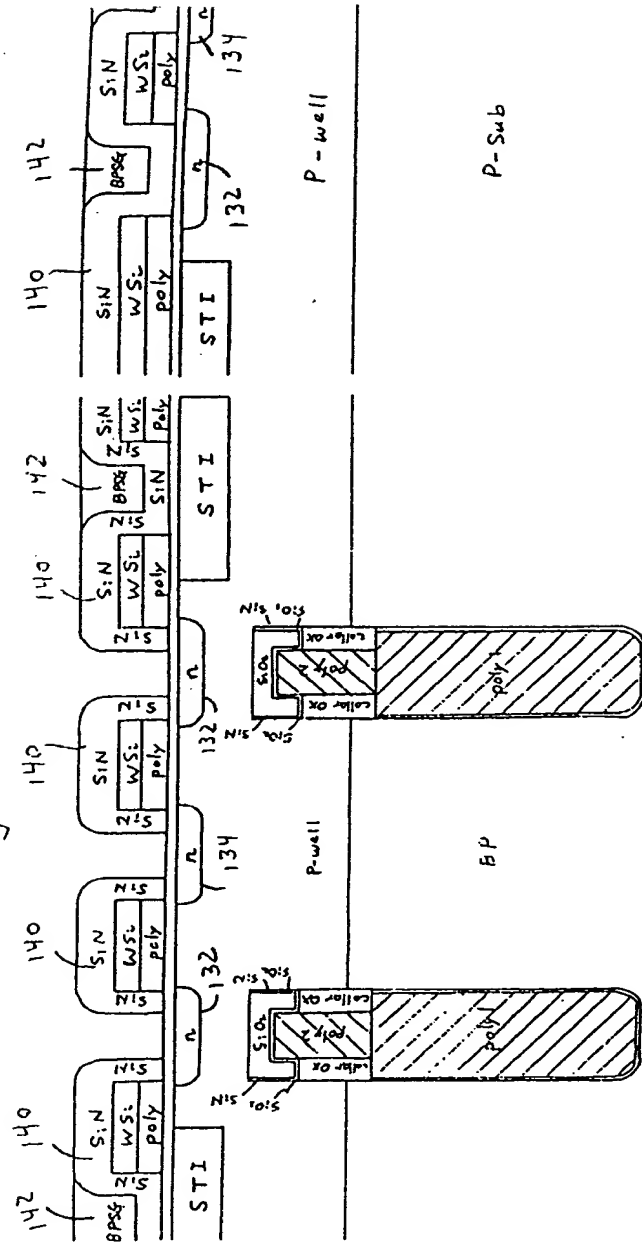
Figure 5E



— Cell Array —

— Support Circuit —

Figure 5F



— support circuit —

— cell array —

Figure 5g

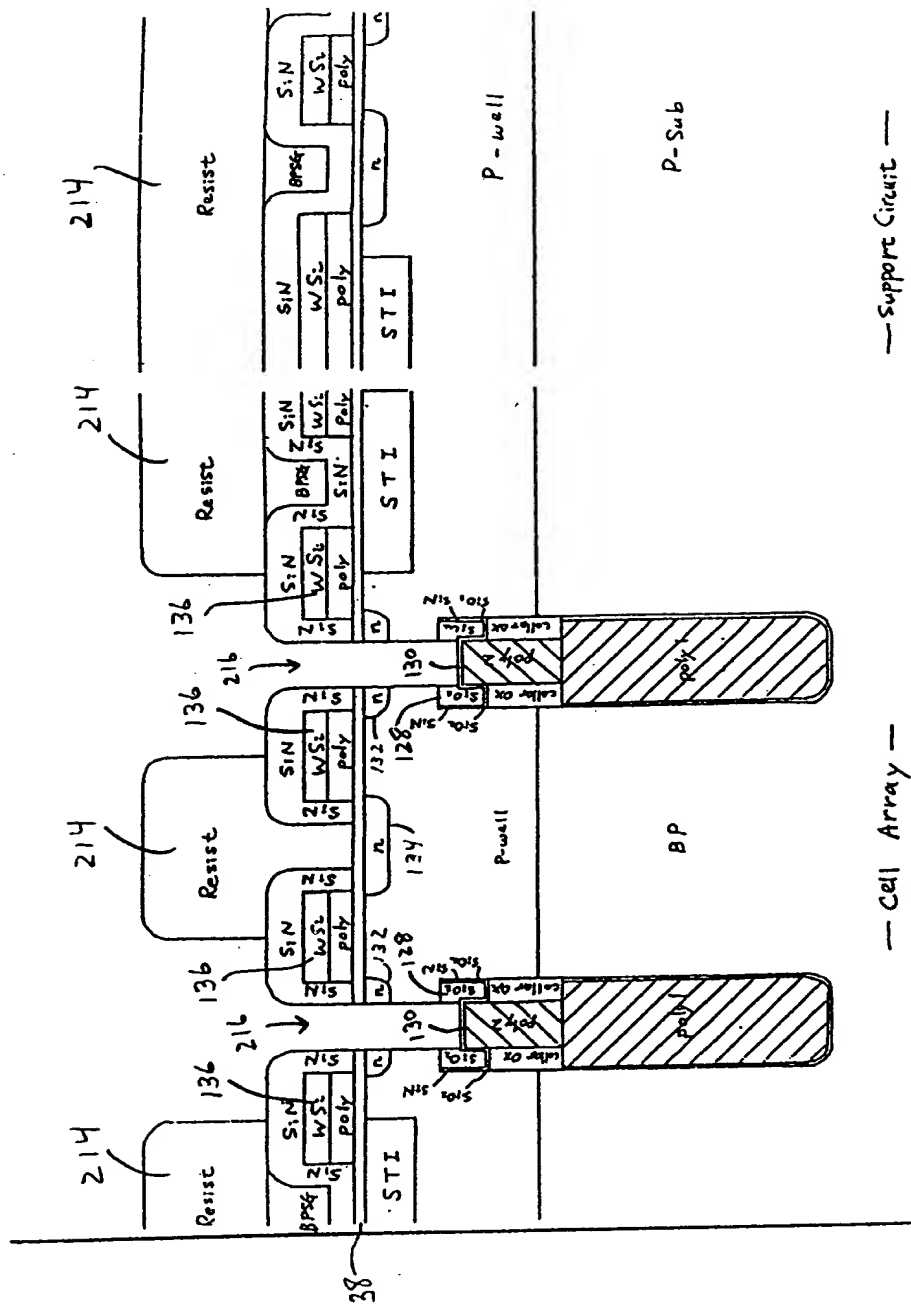


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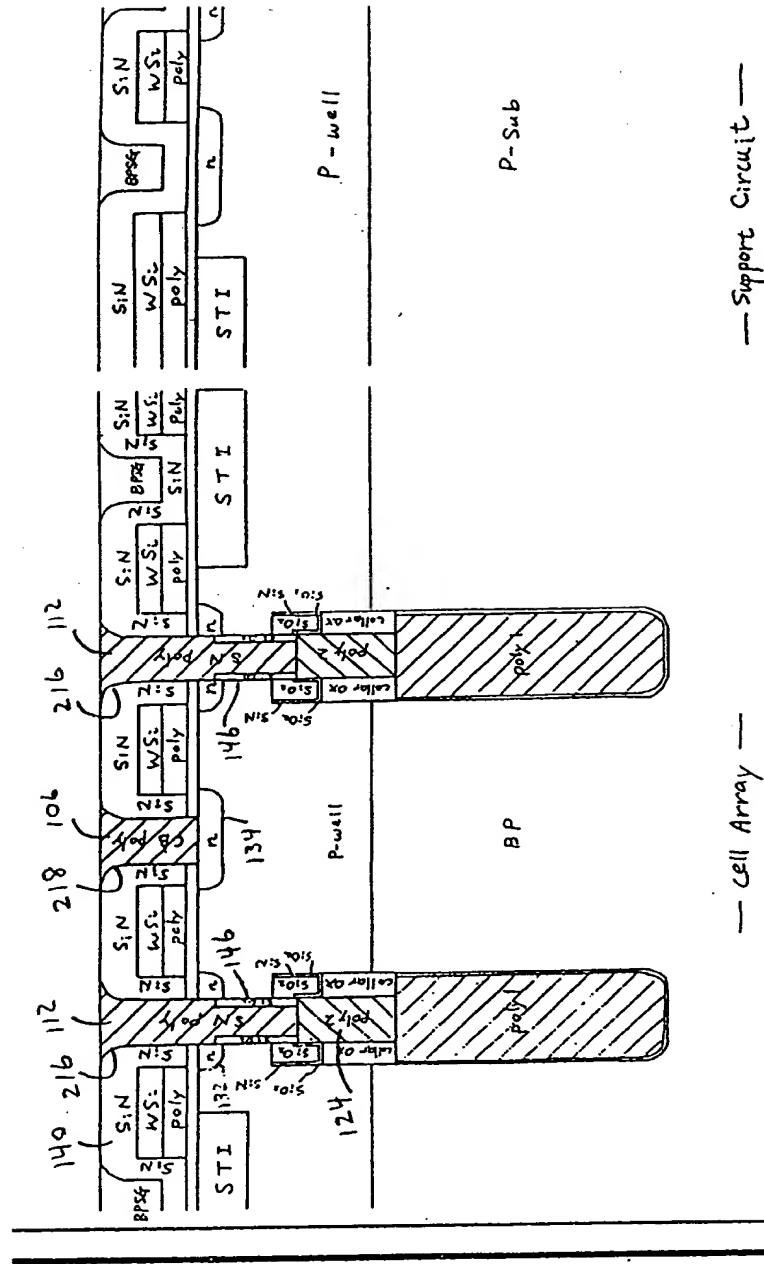
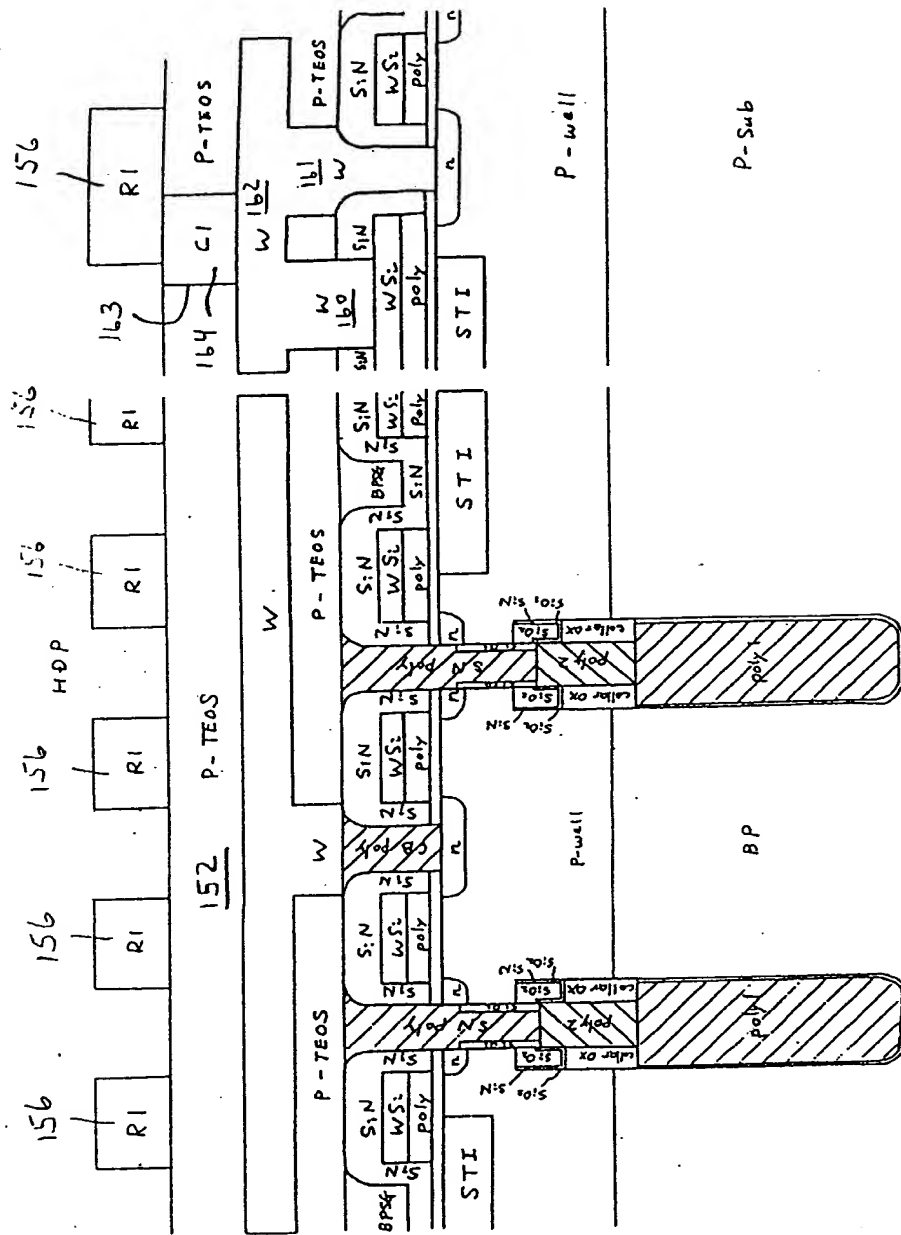


Figure 5J



—Support Circuit —

—Cell Array —

Figure 6

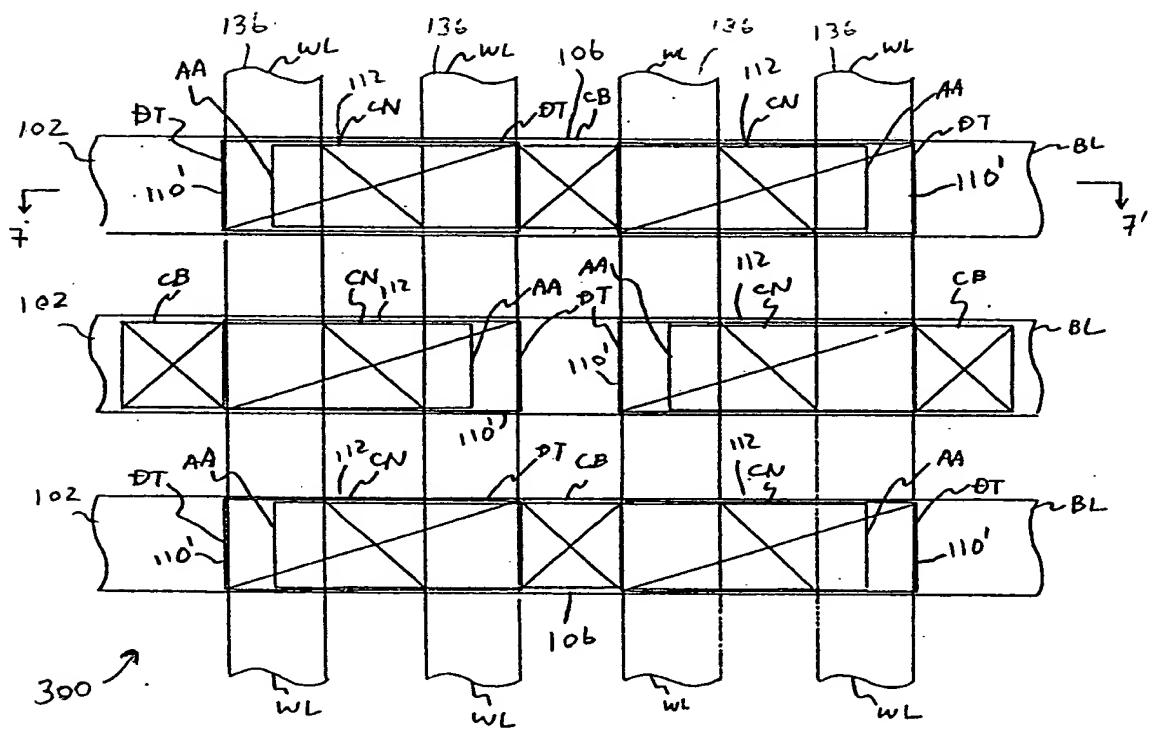
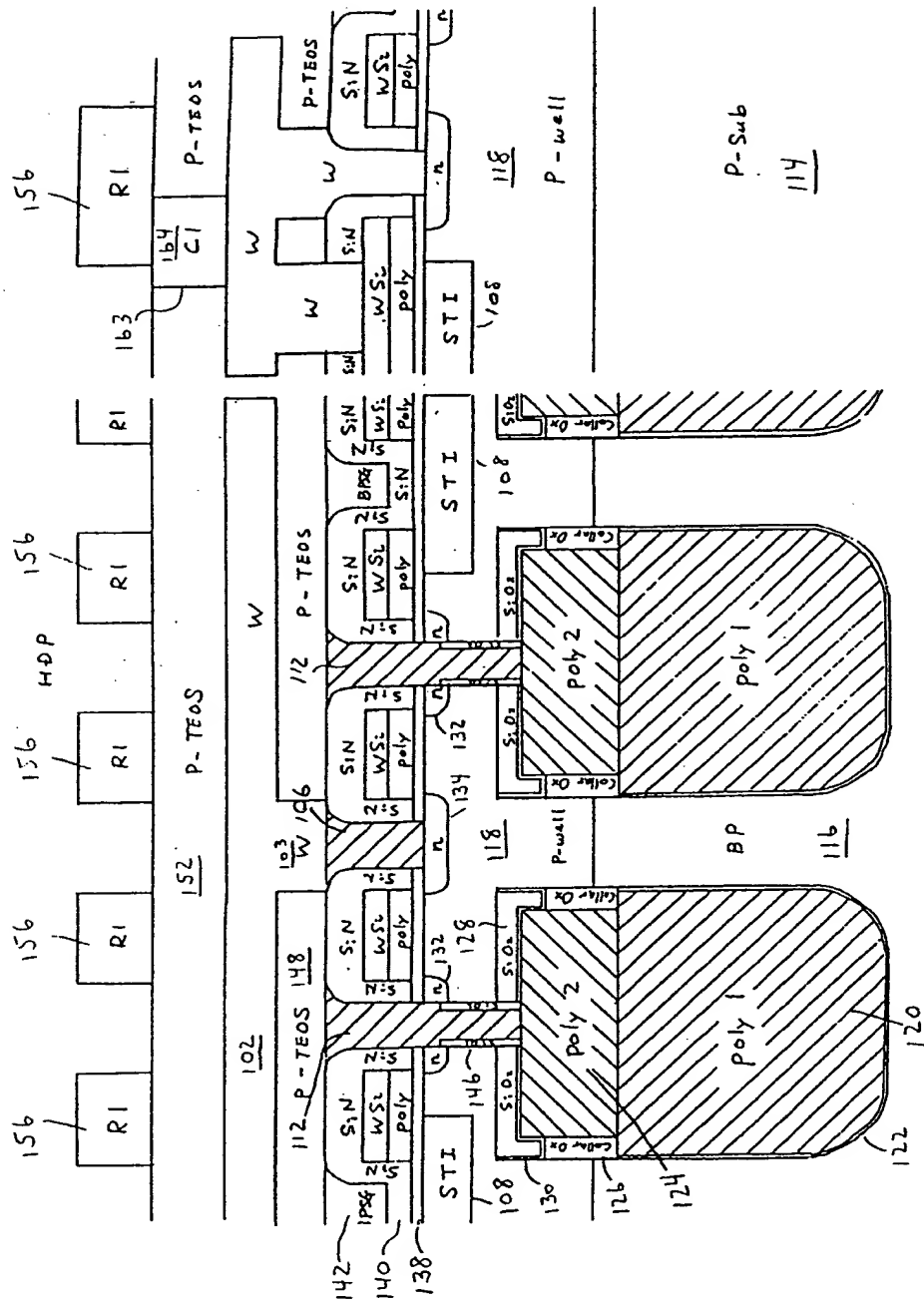


Figure 7



— Support Circuit —

— cell Array —

Figure 8

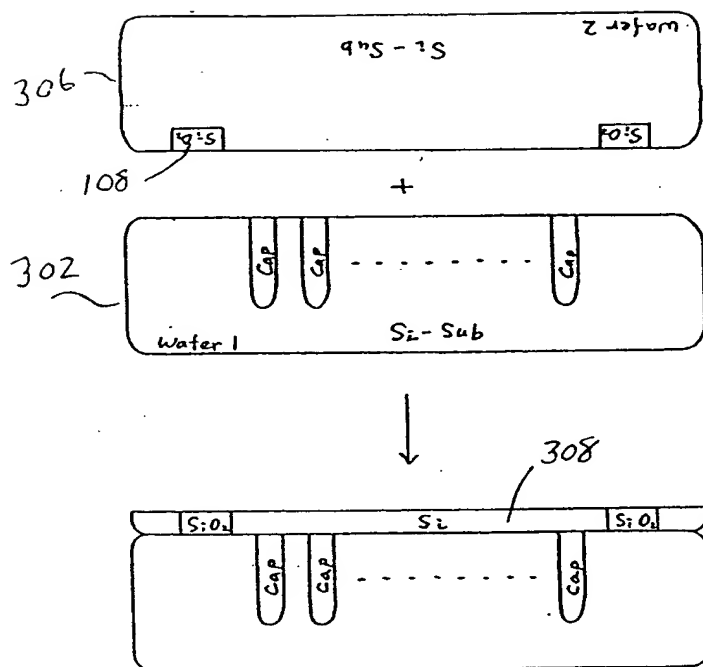


Figure 9A

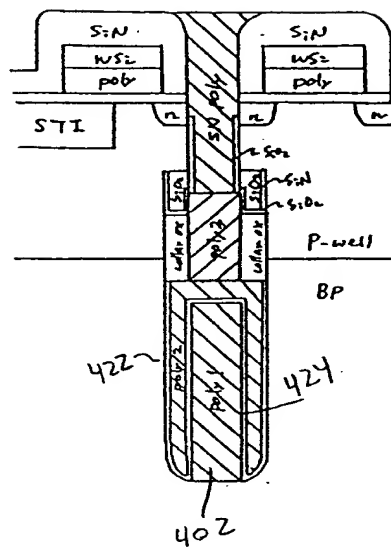
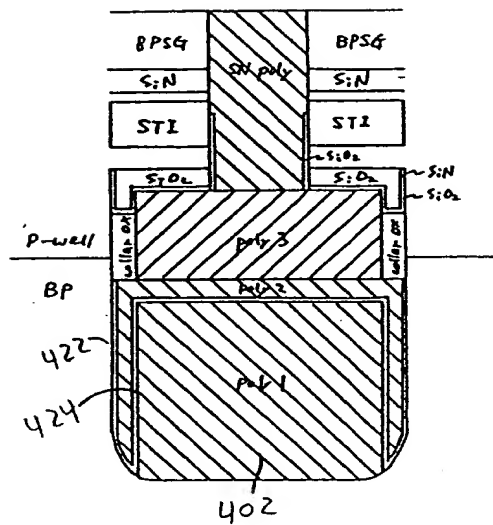


Figure 9B



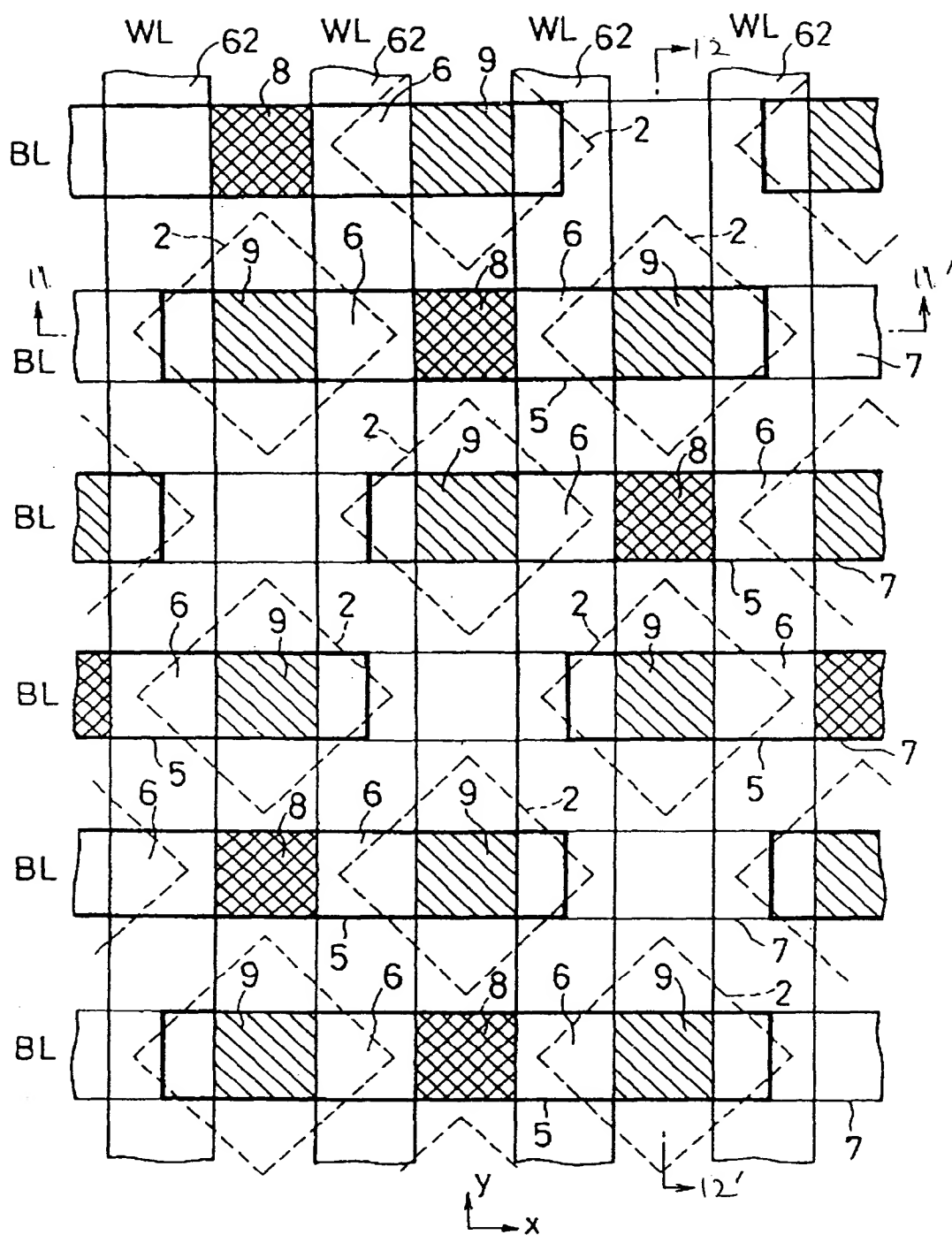


Figure 10

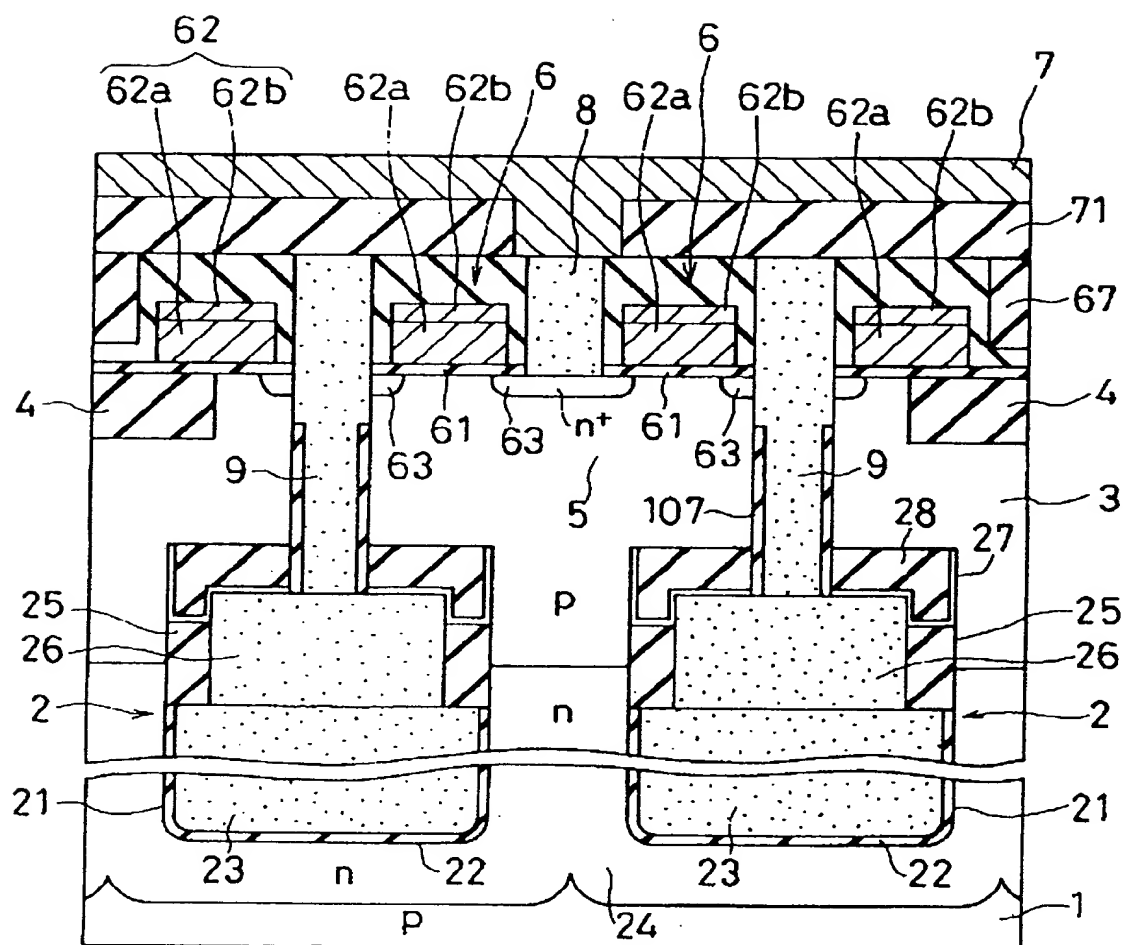


Figure 11

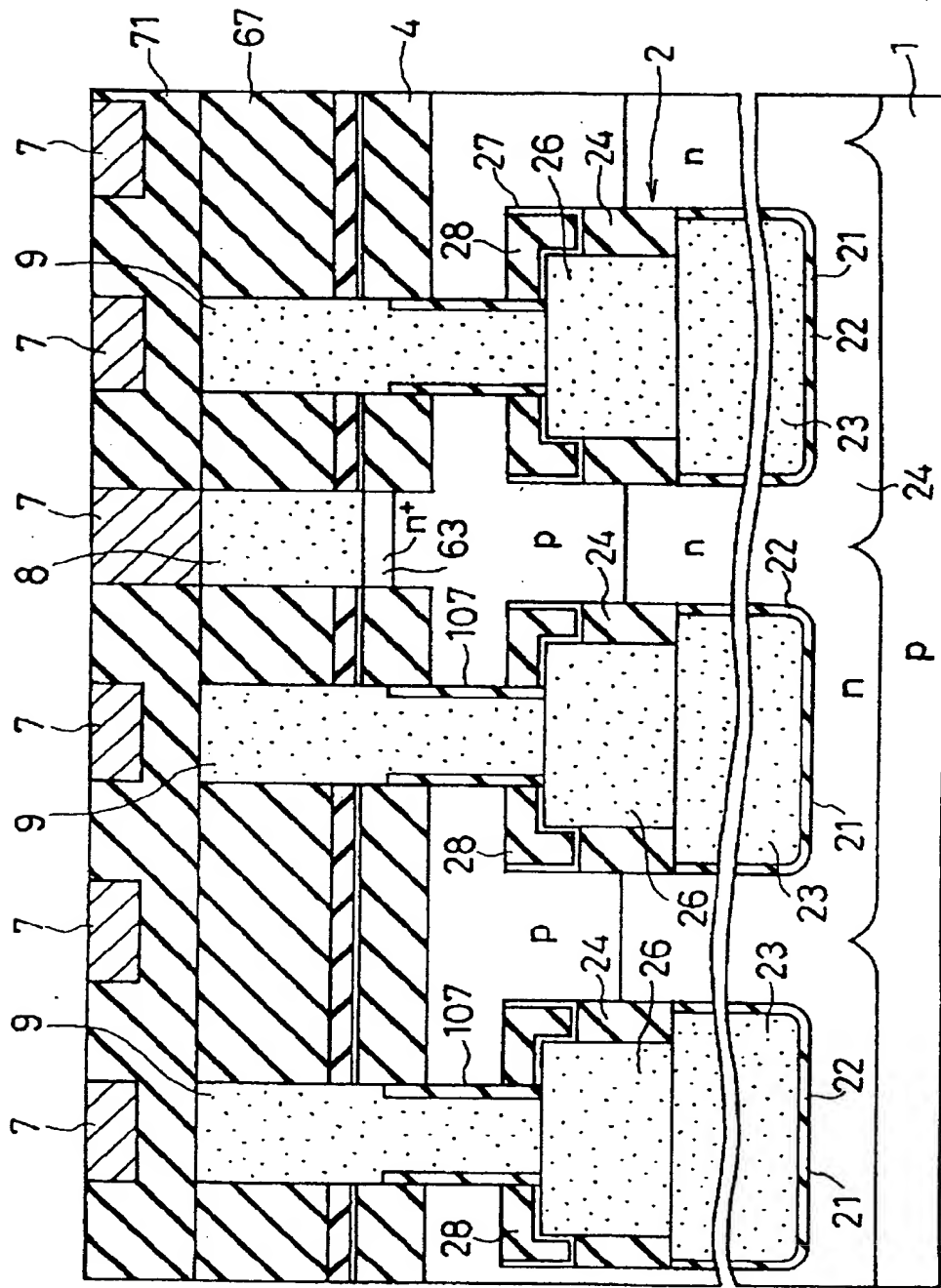


Figure 12

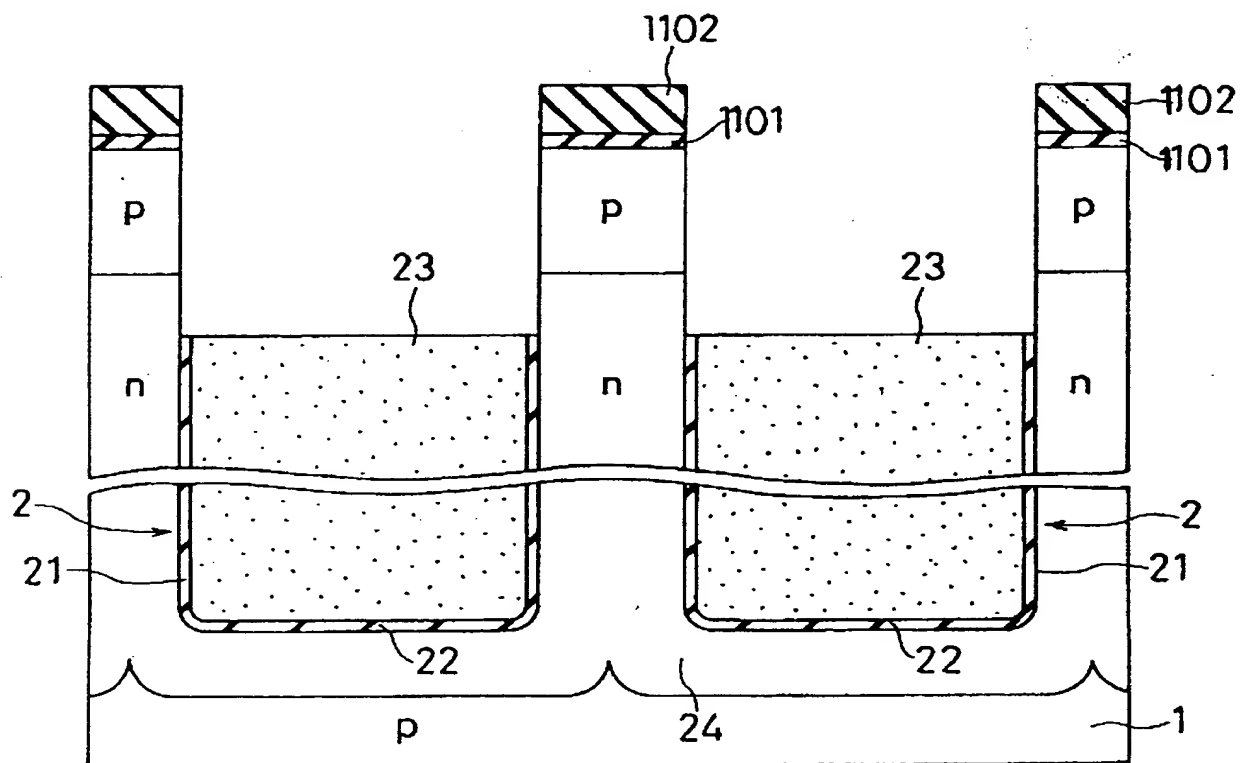


Figure 13A

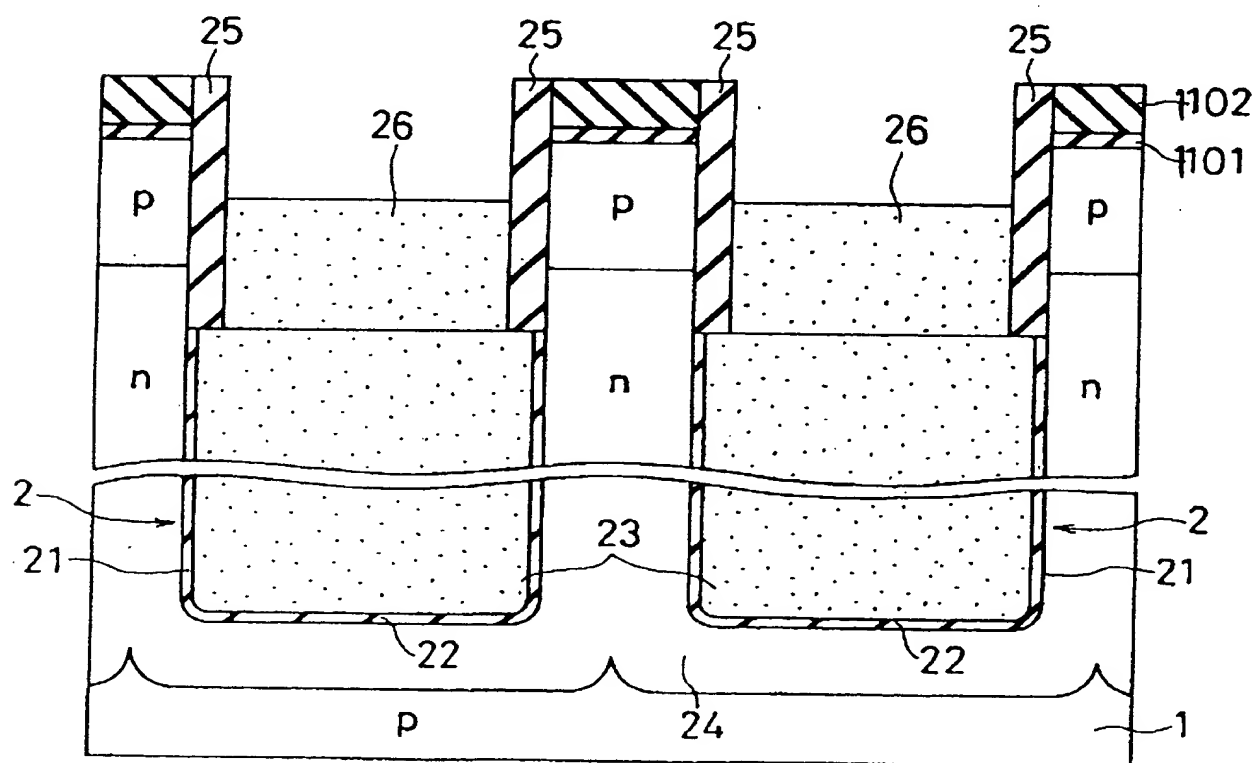


Figure 13 B

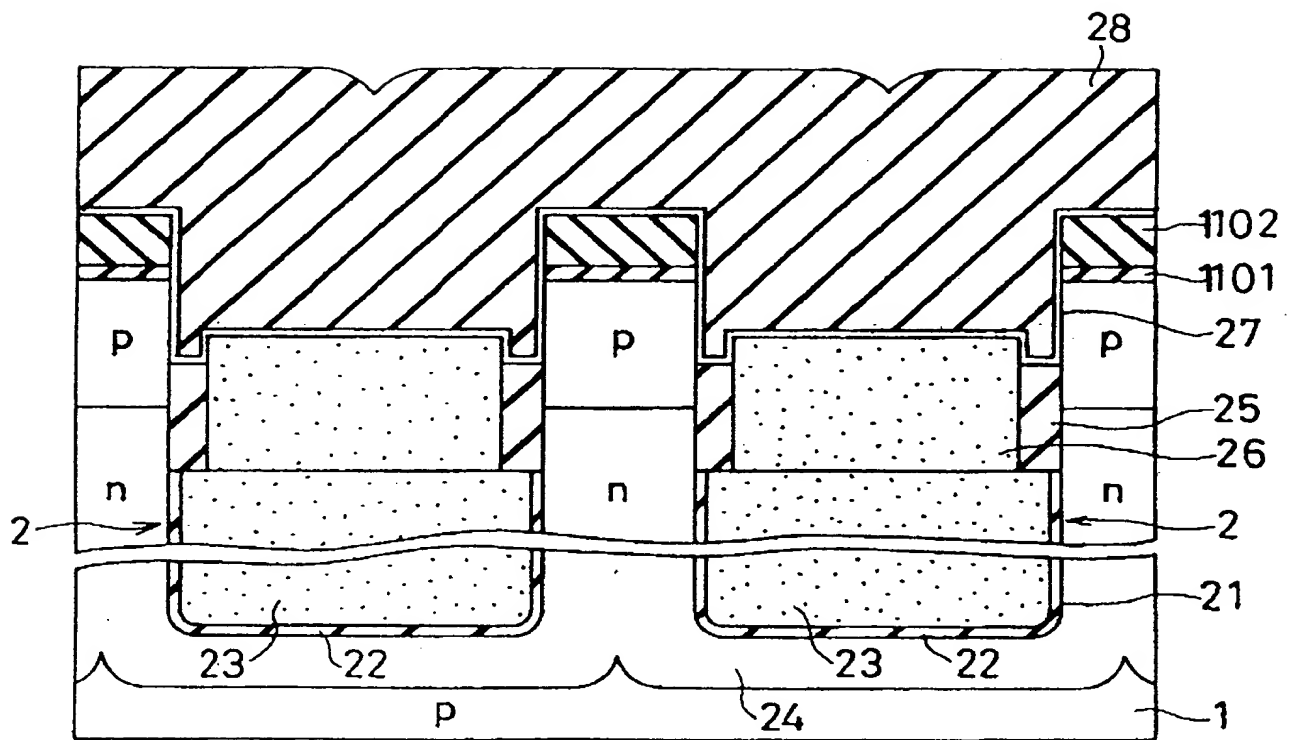


Figure 13C

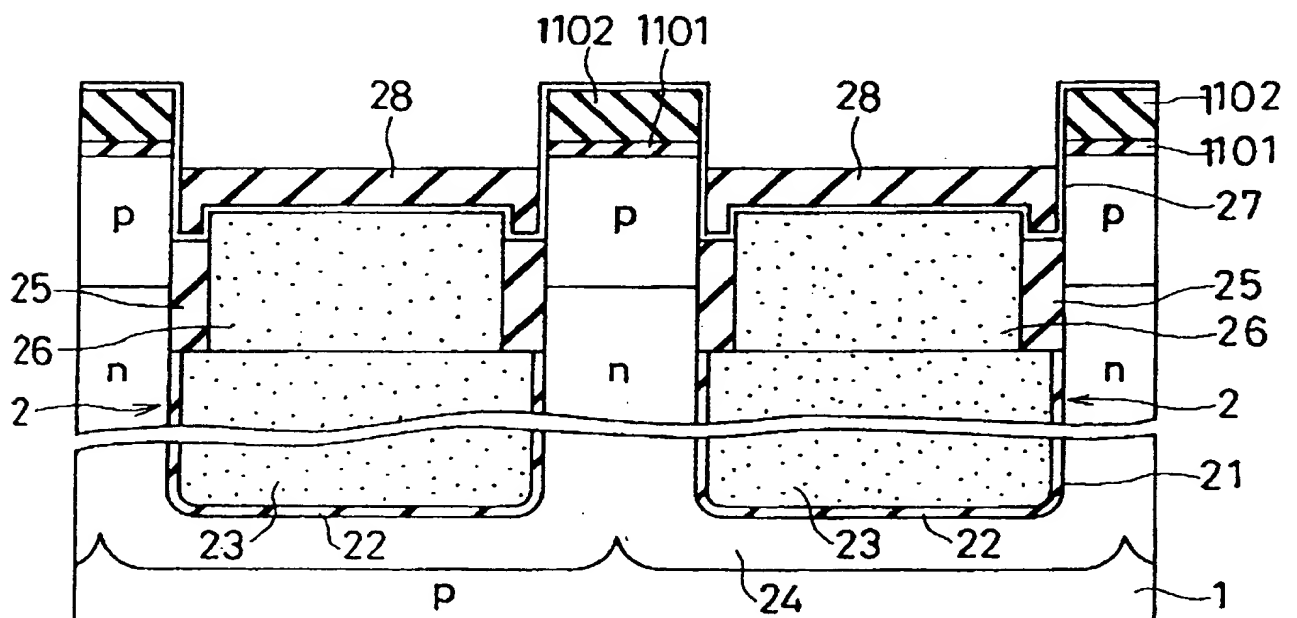


Figure 13D

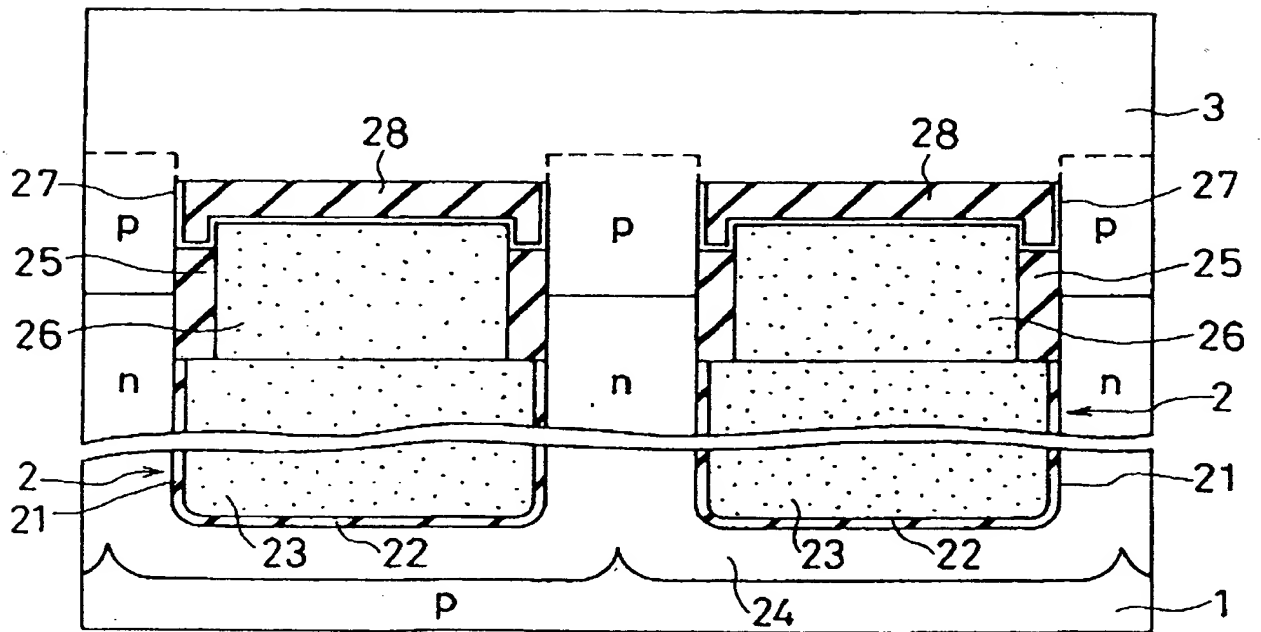


Figure 13E

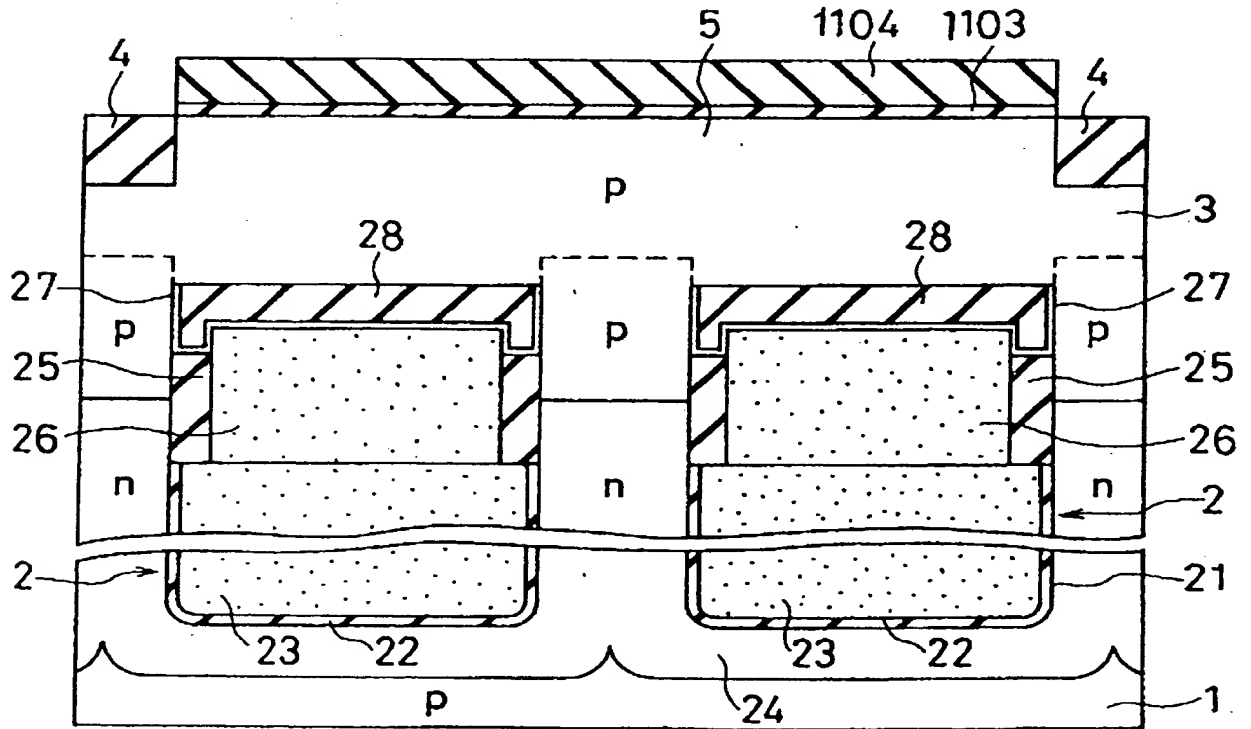


Figure 13F

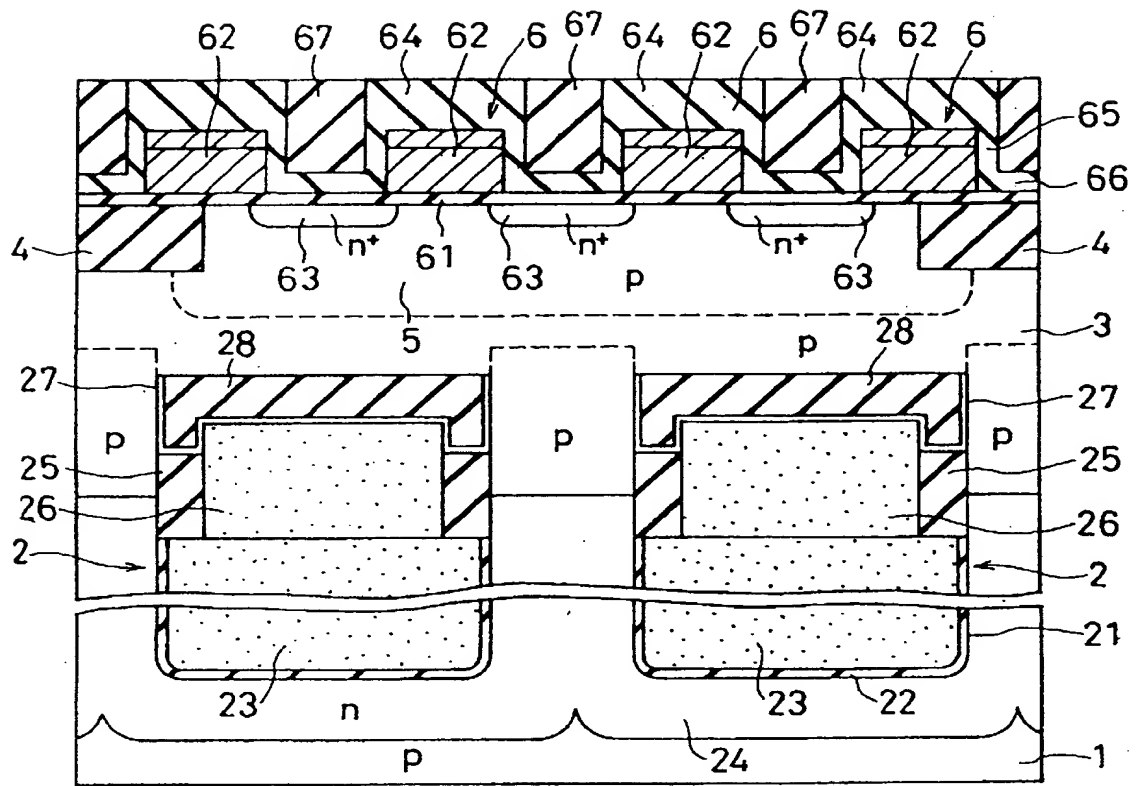


Figure 13G

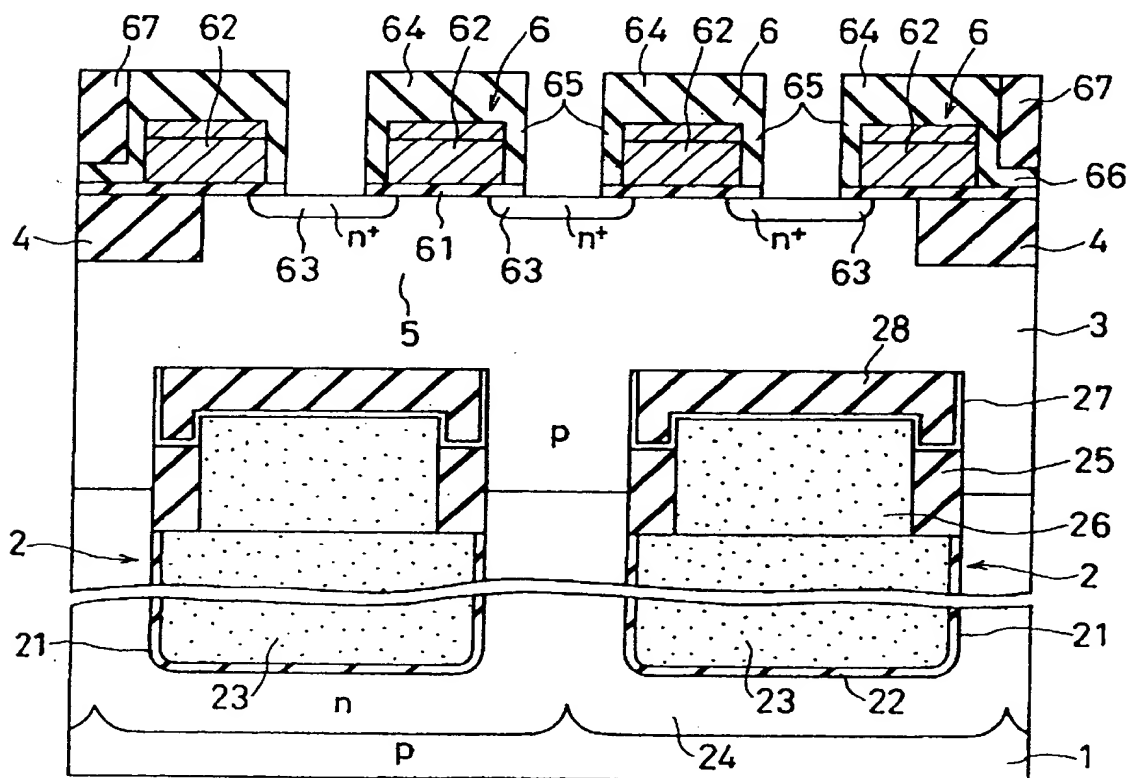


Figure 13H

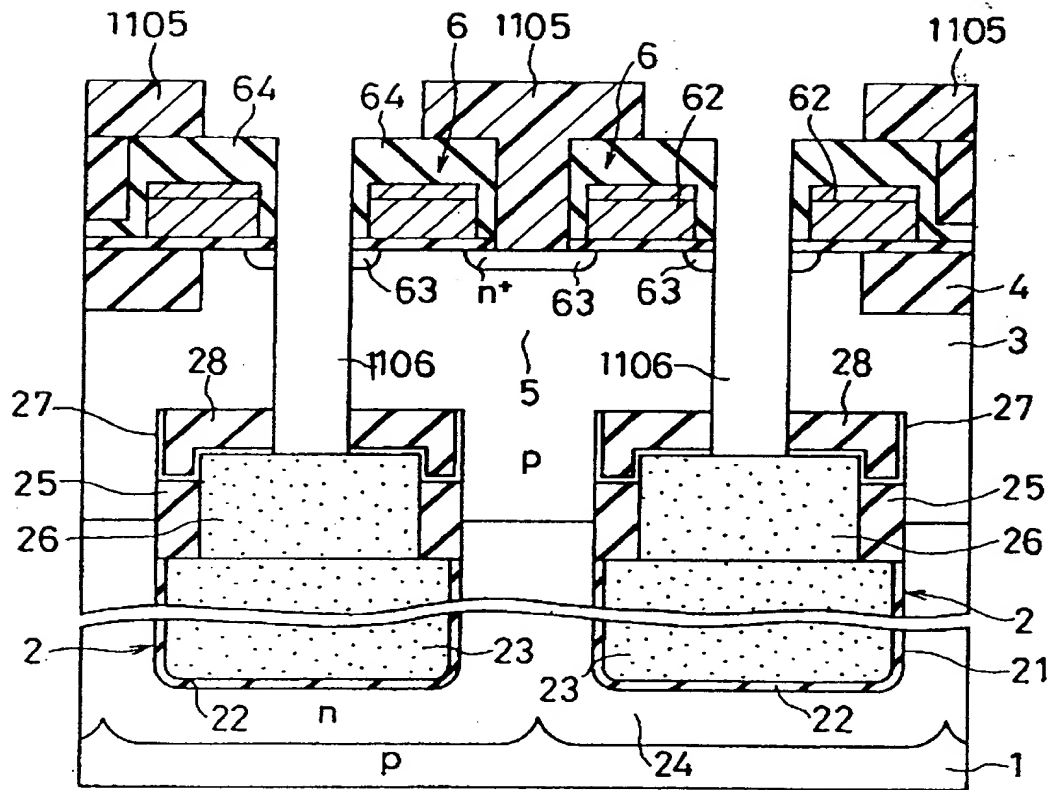


Figure 13I

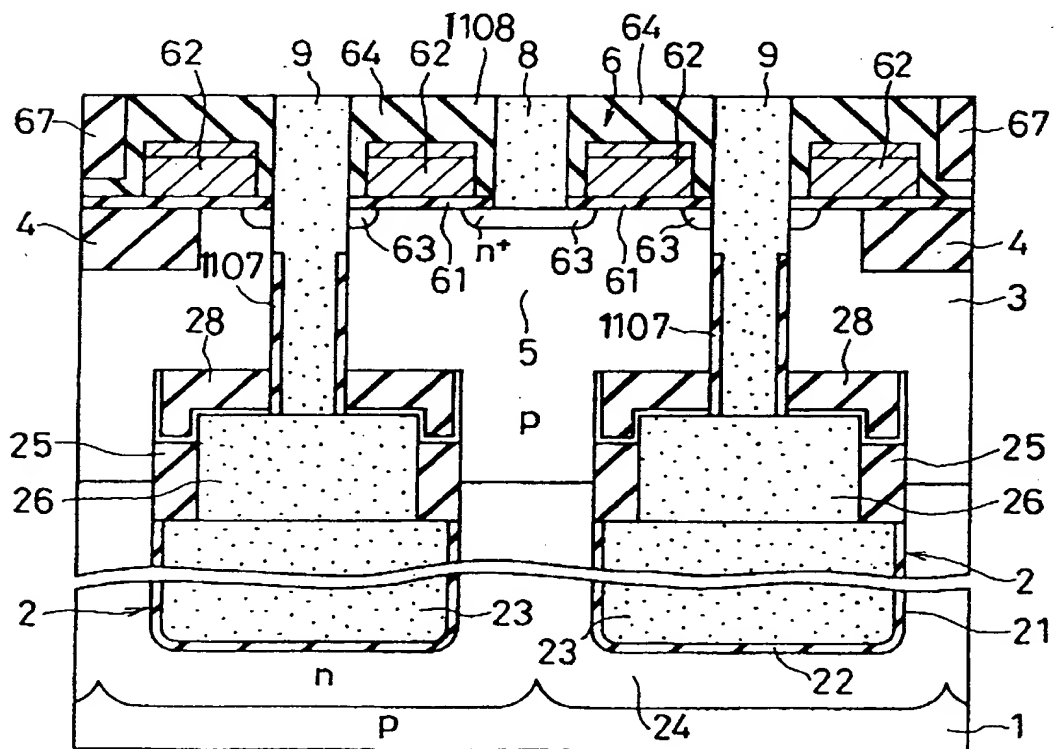


Figure 13J

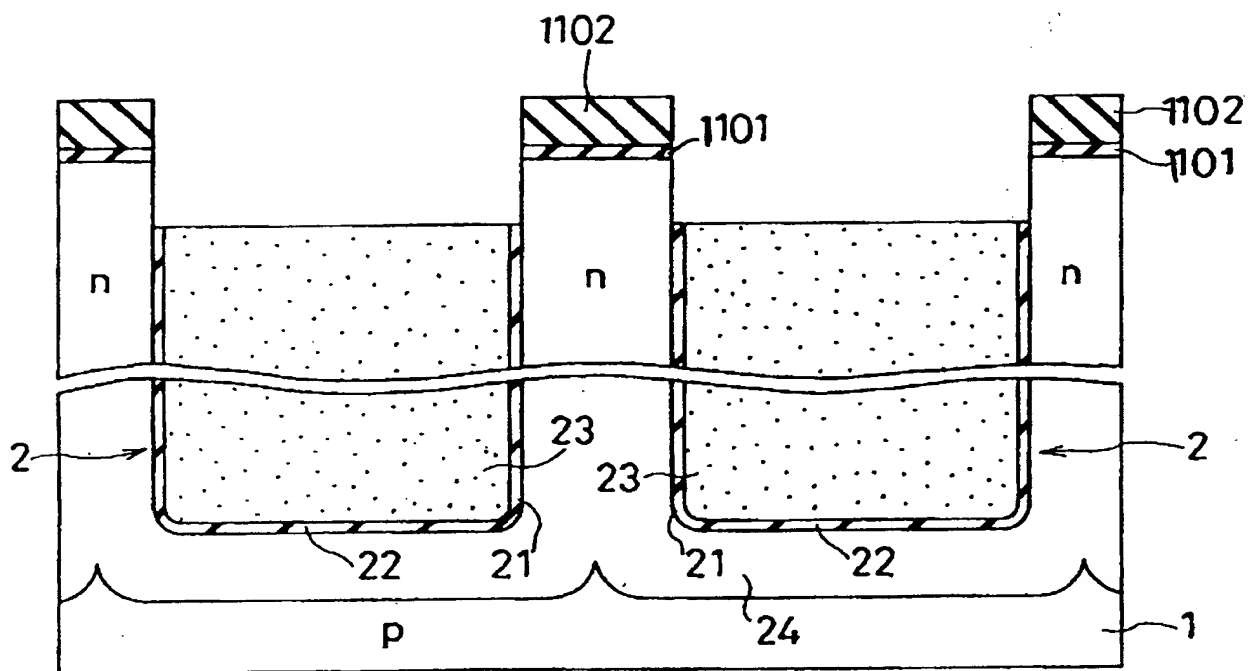


Figure 14A

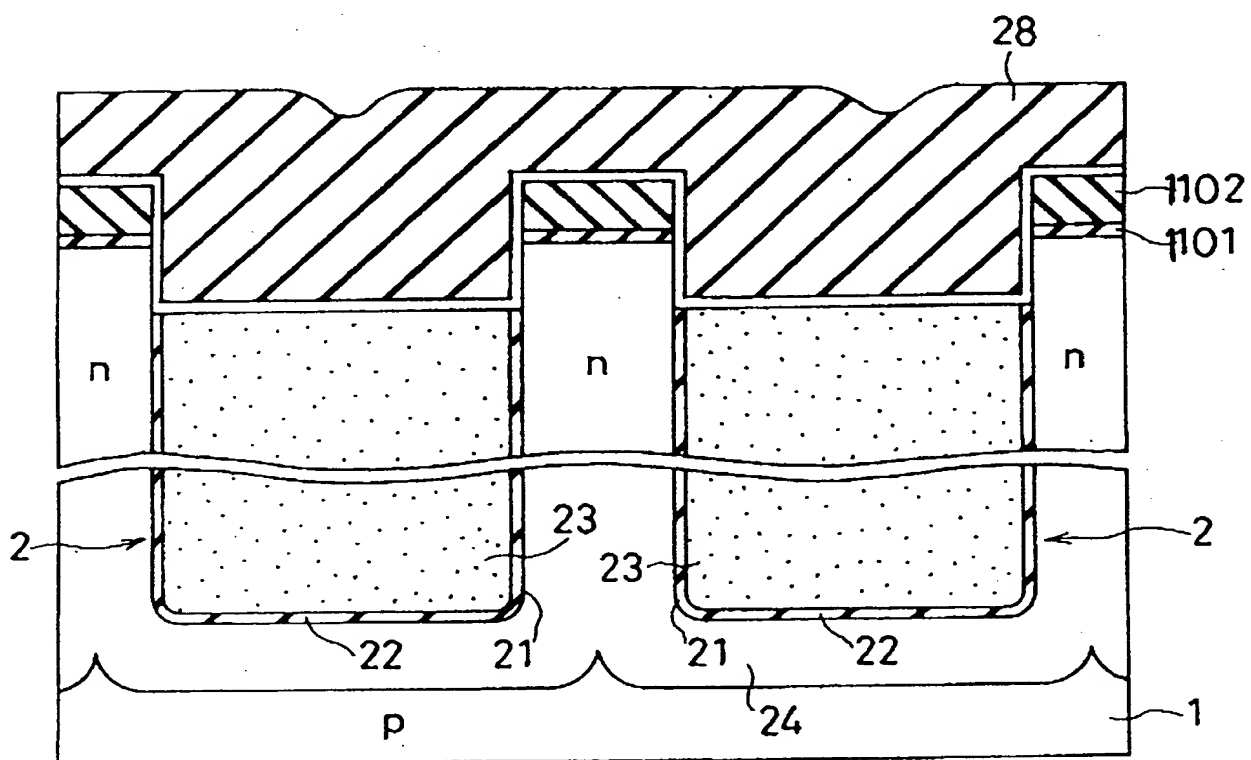


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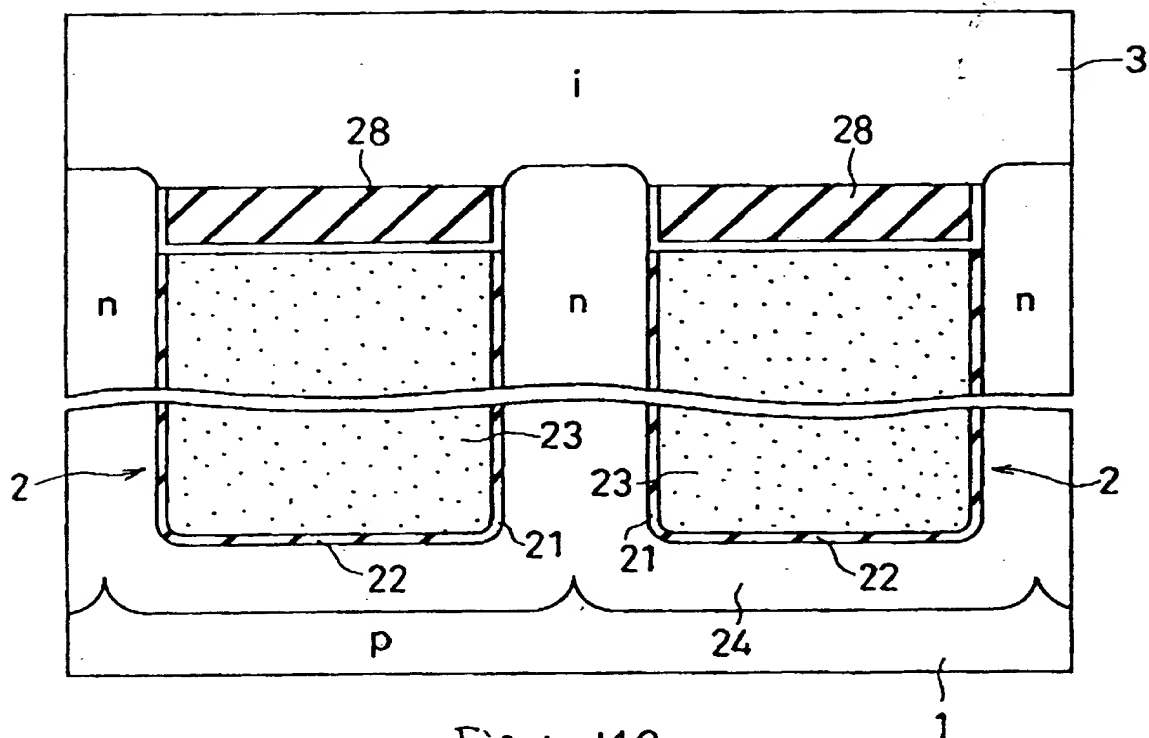


Figure 14C

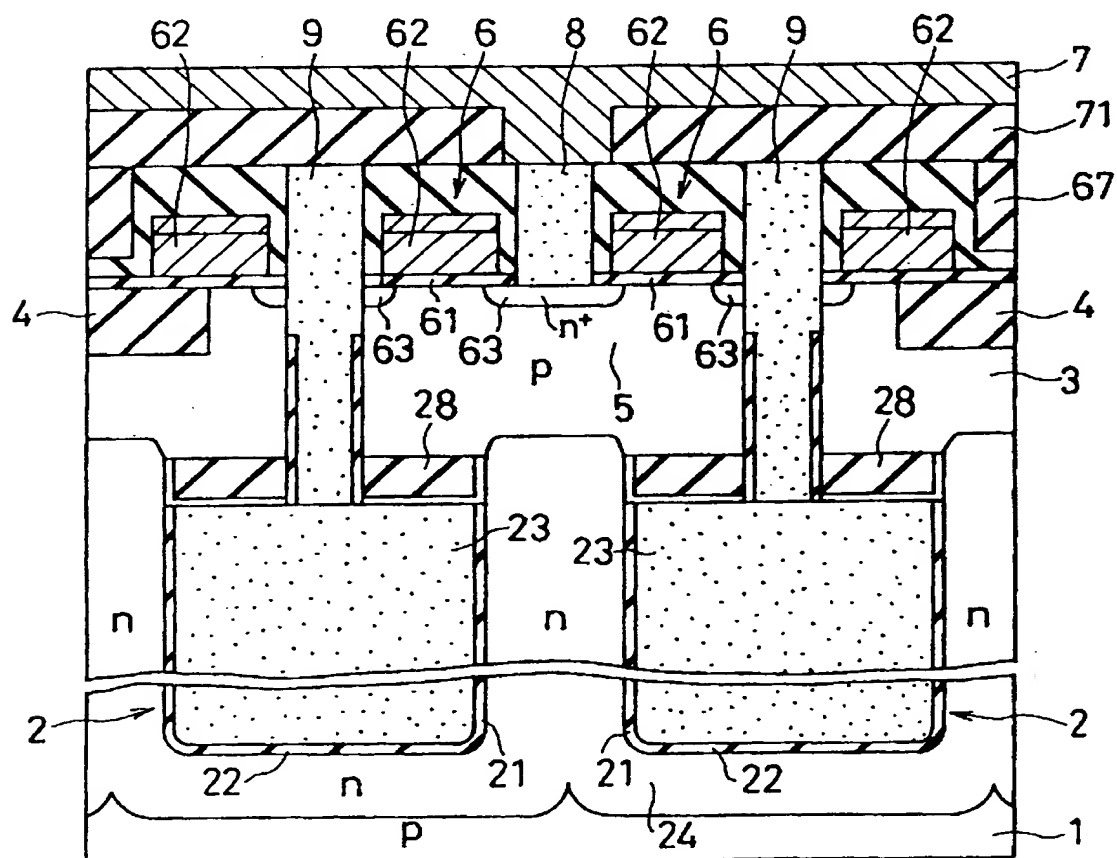


Figure 14D

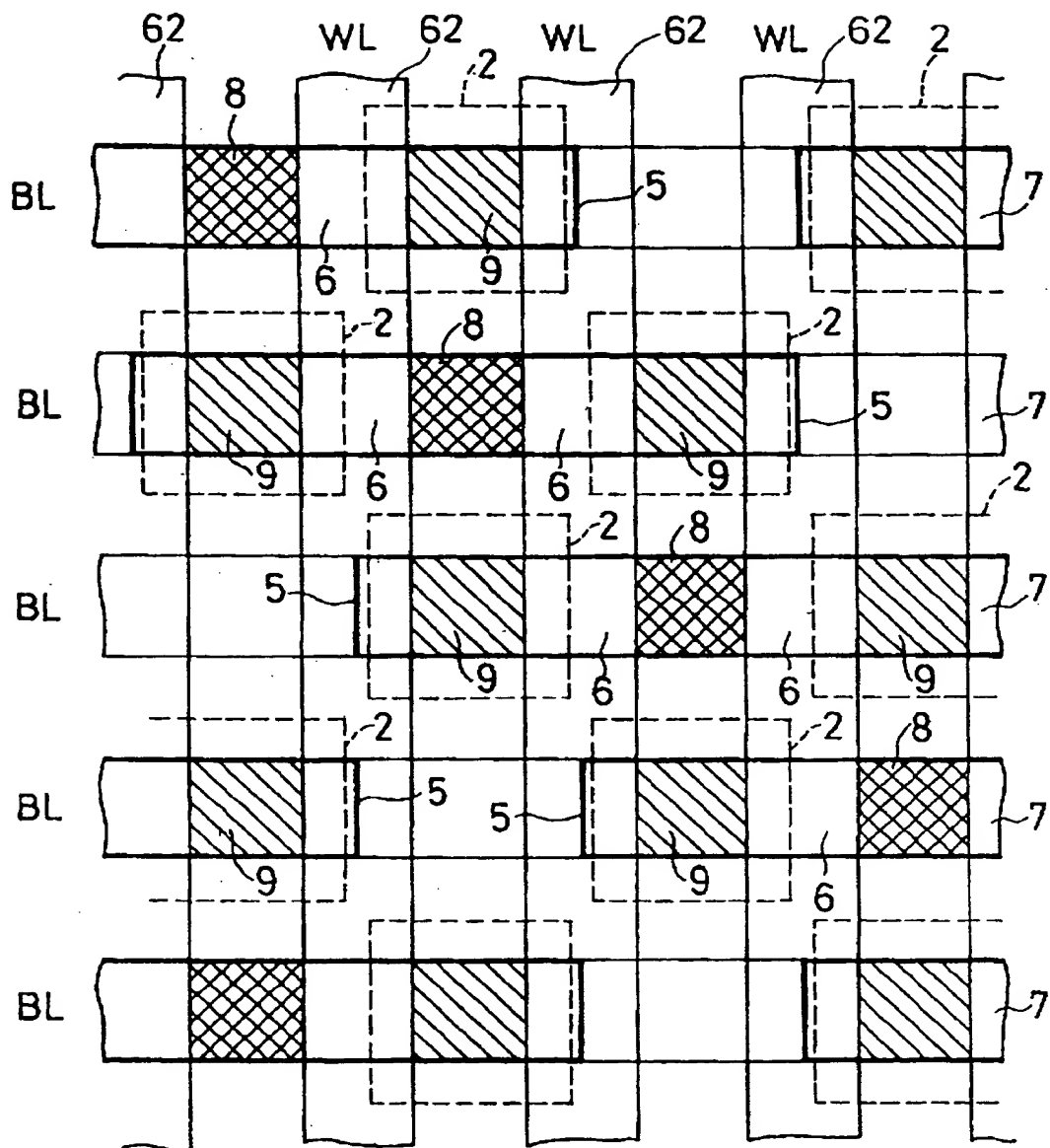


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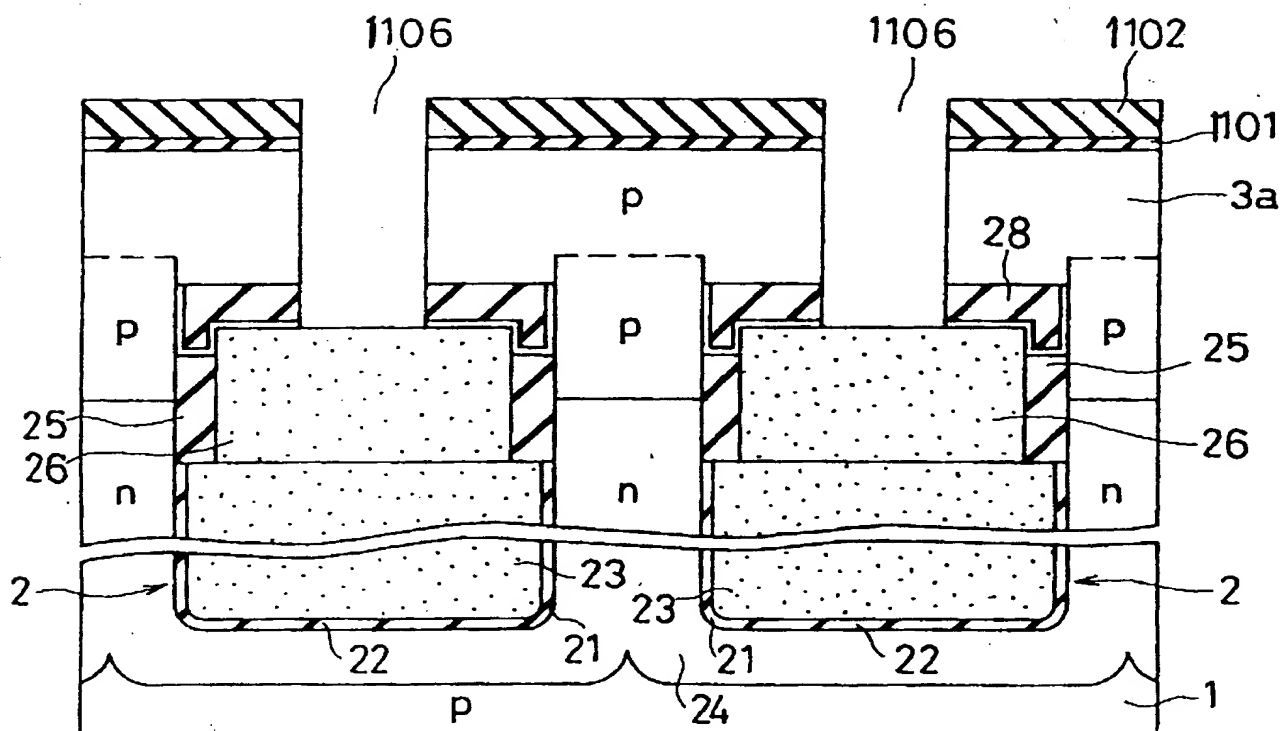


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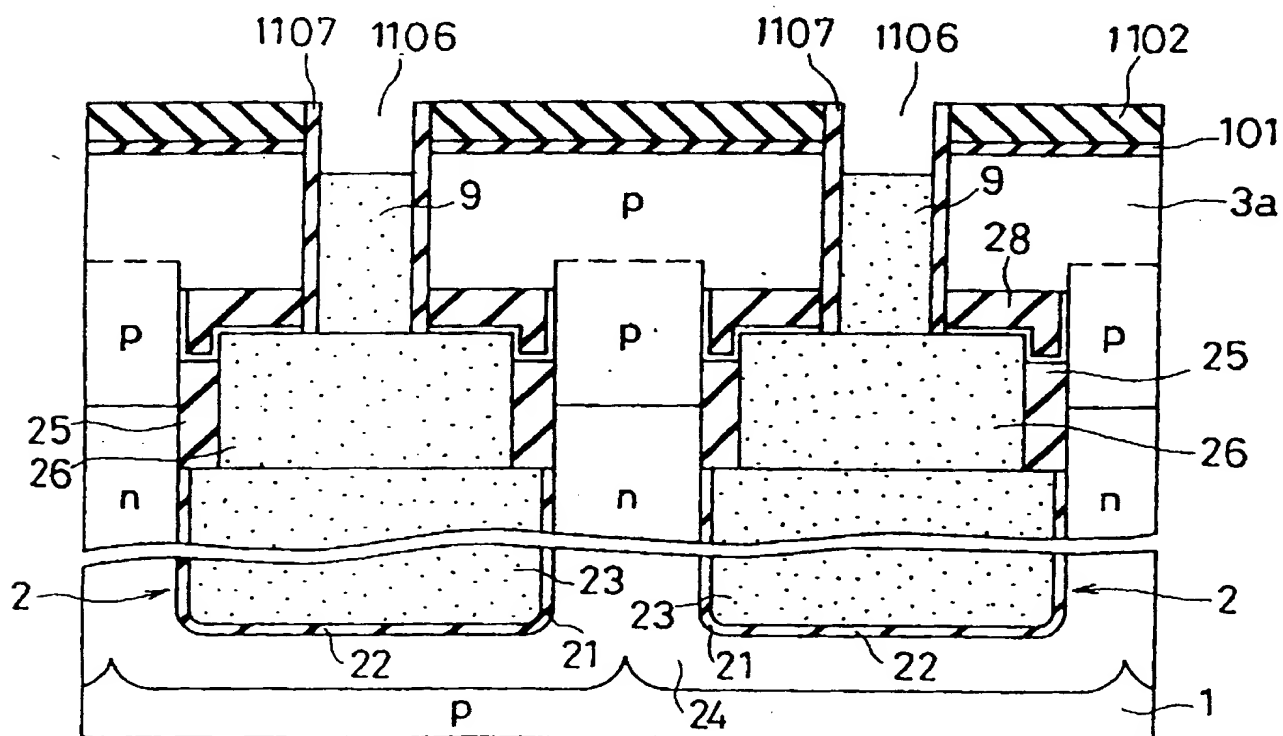


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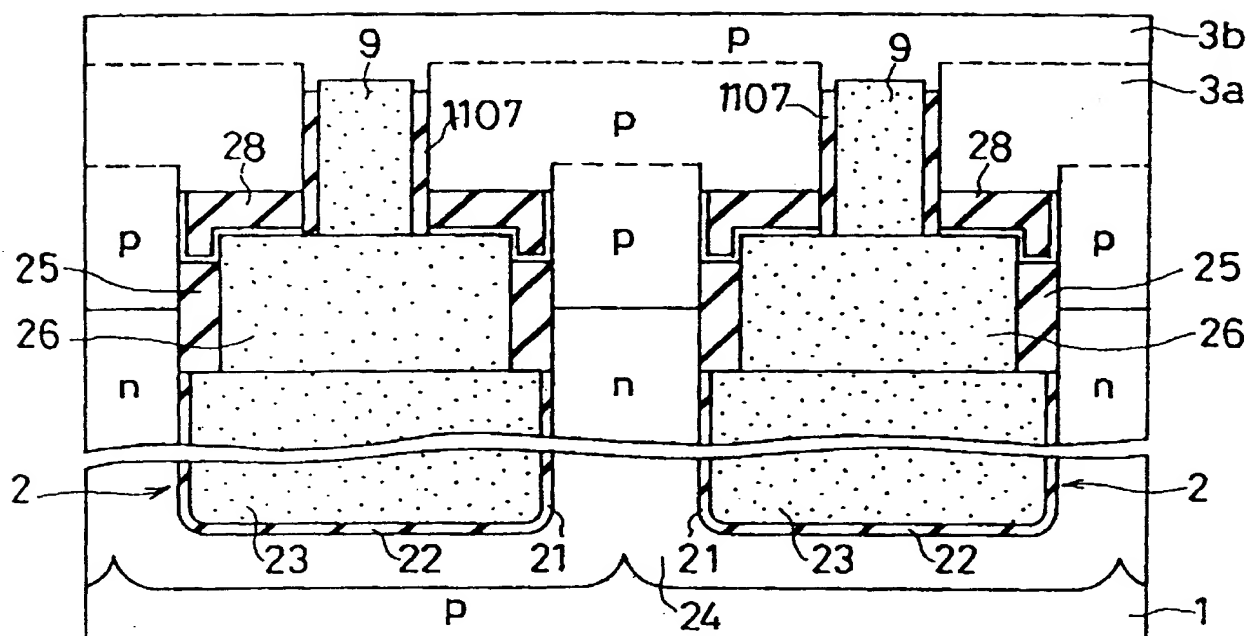


Figure 16C

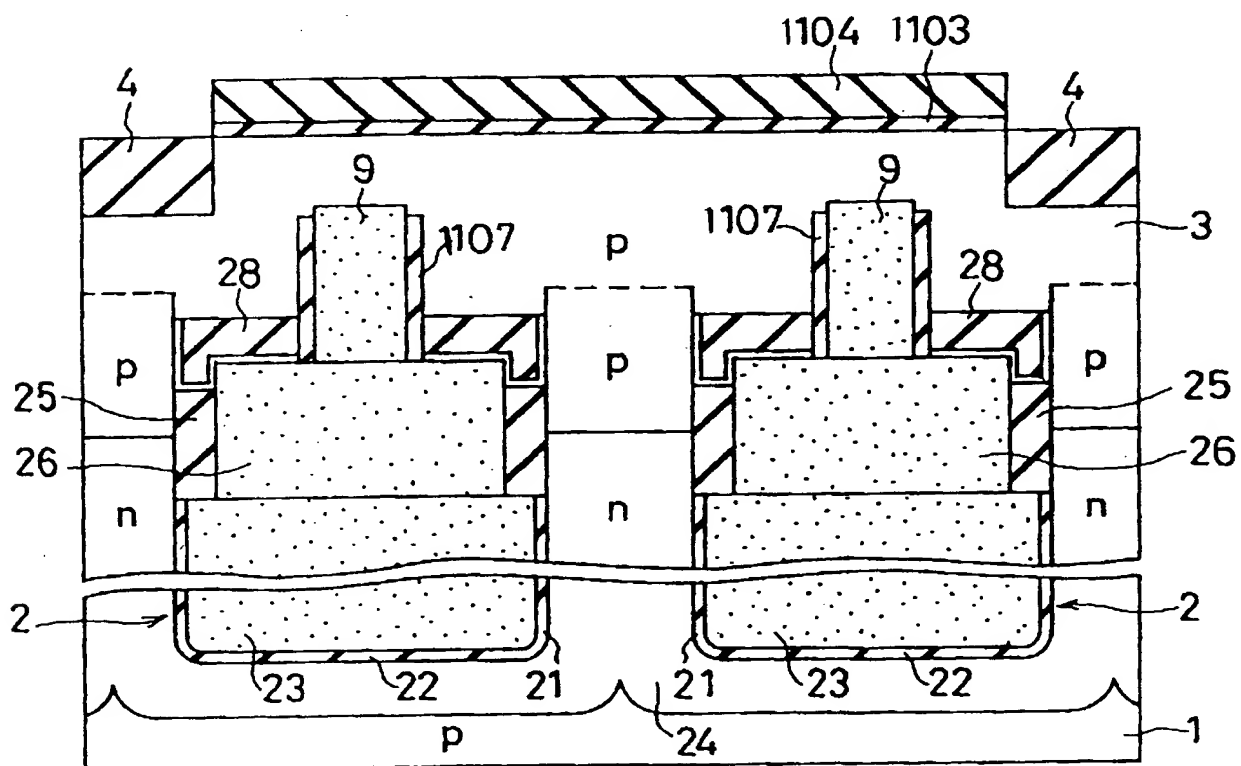


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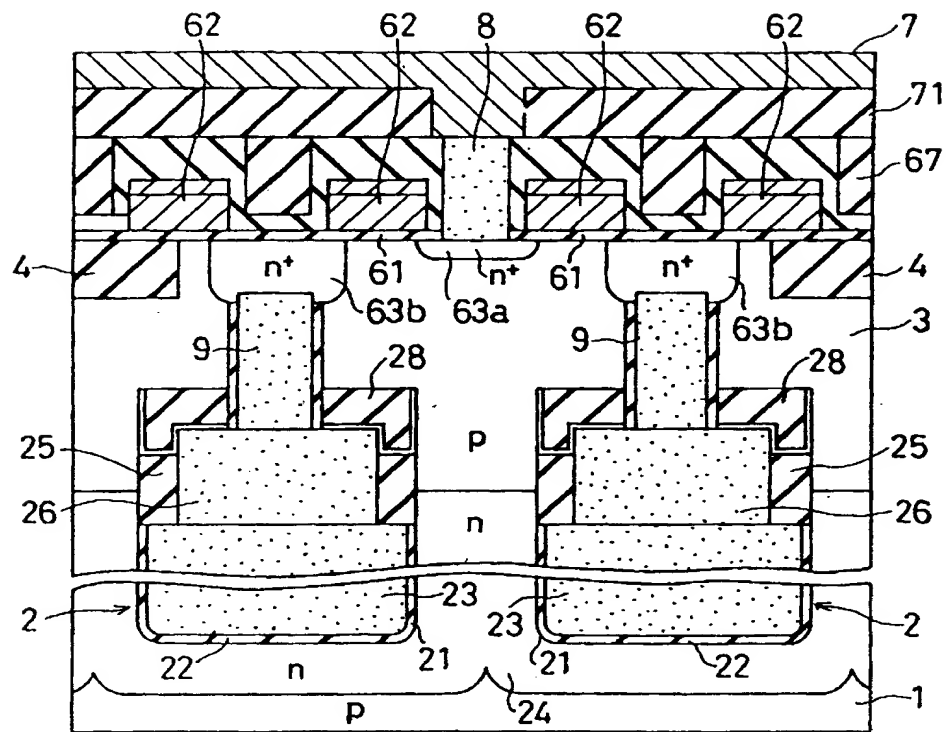


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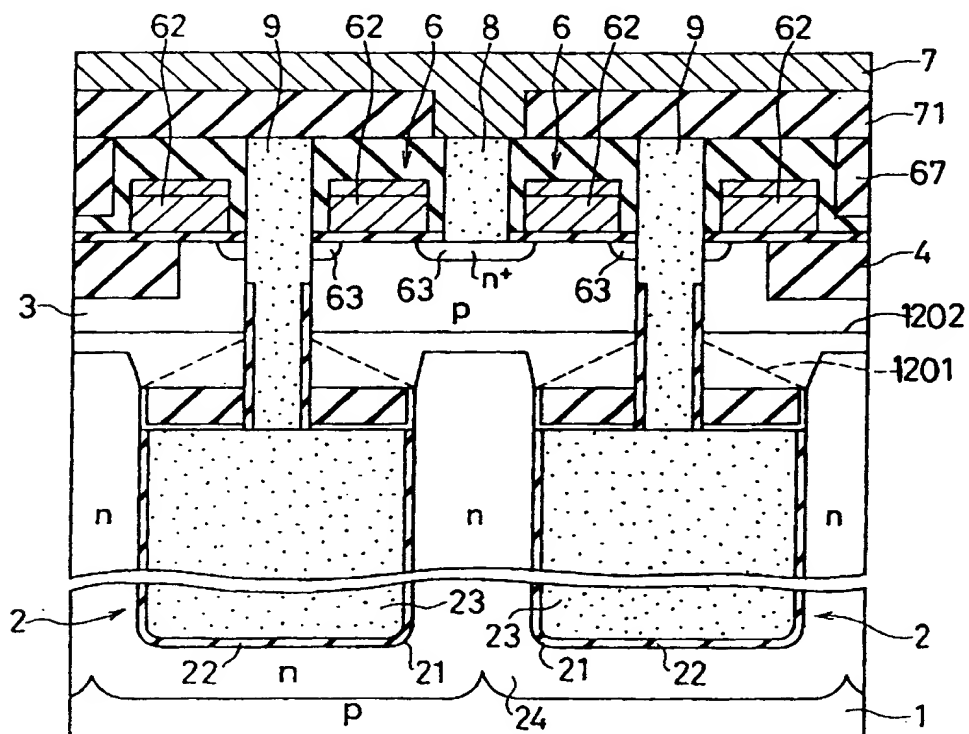


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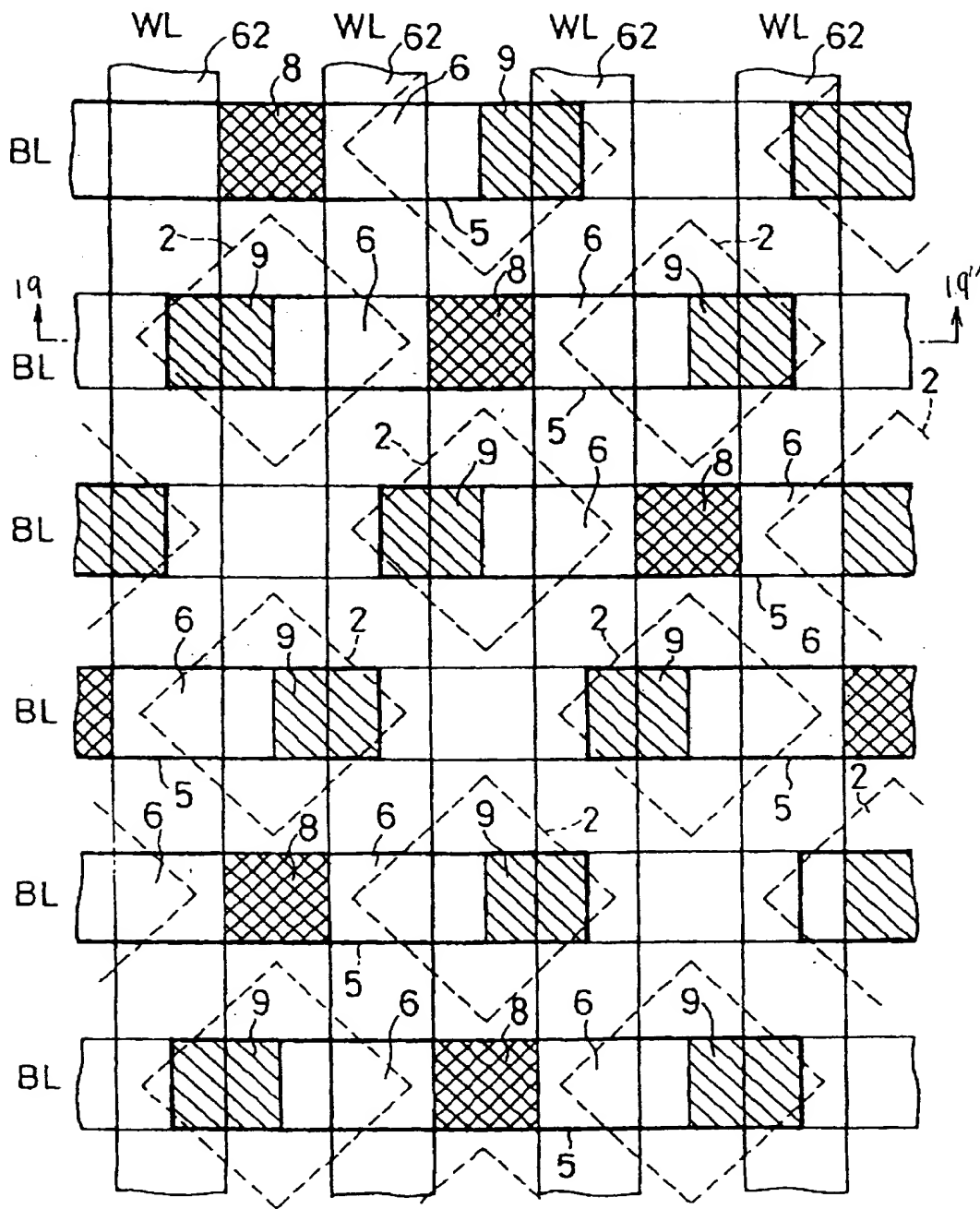


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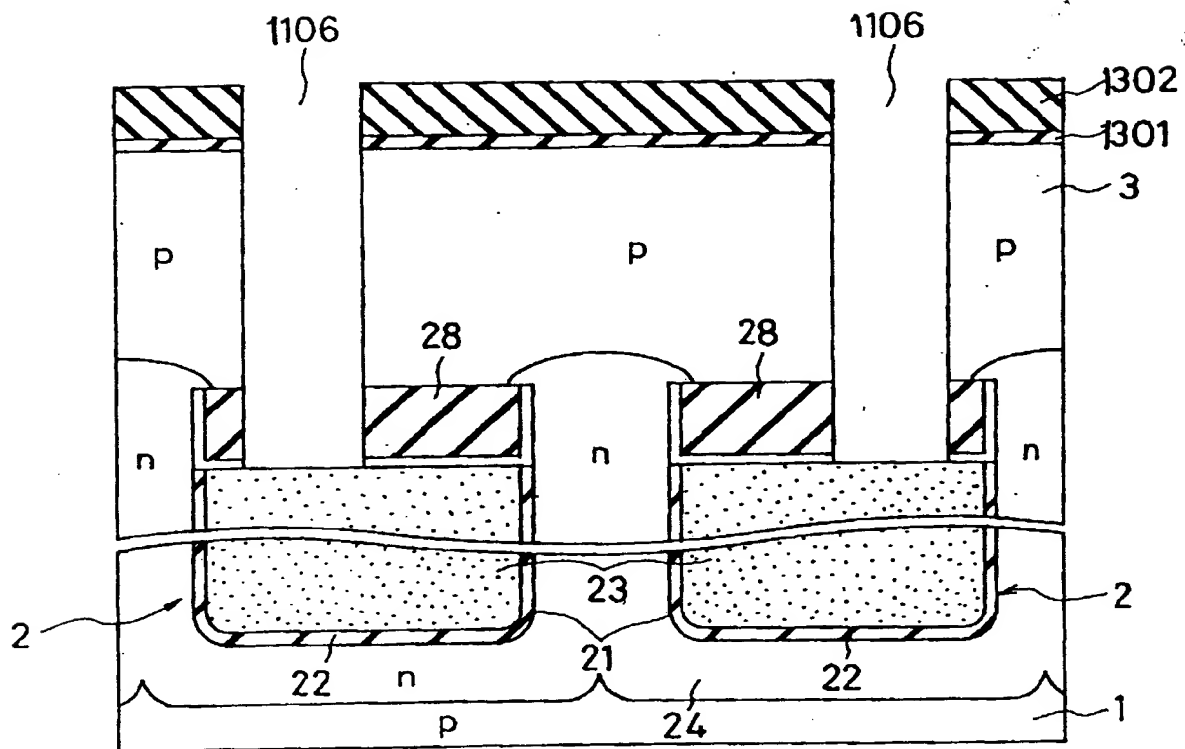


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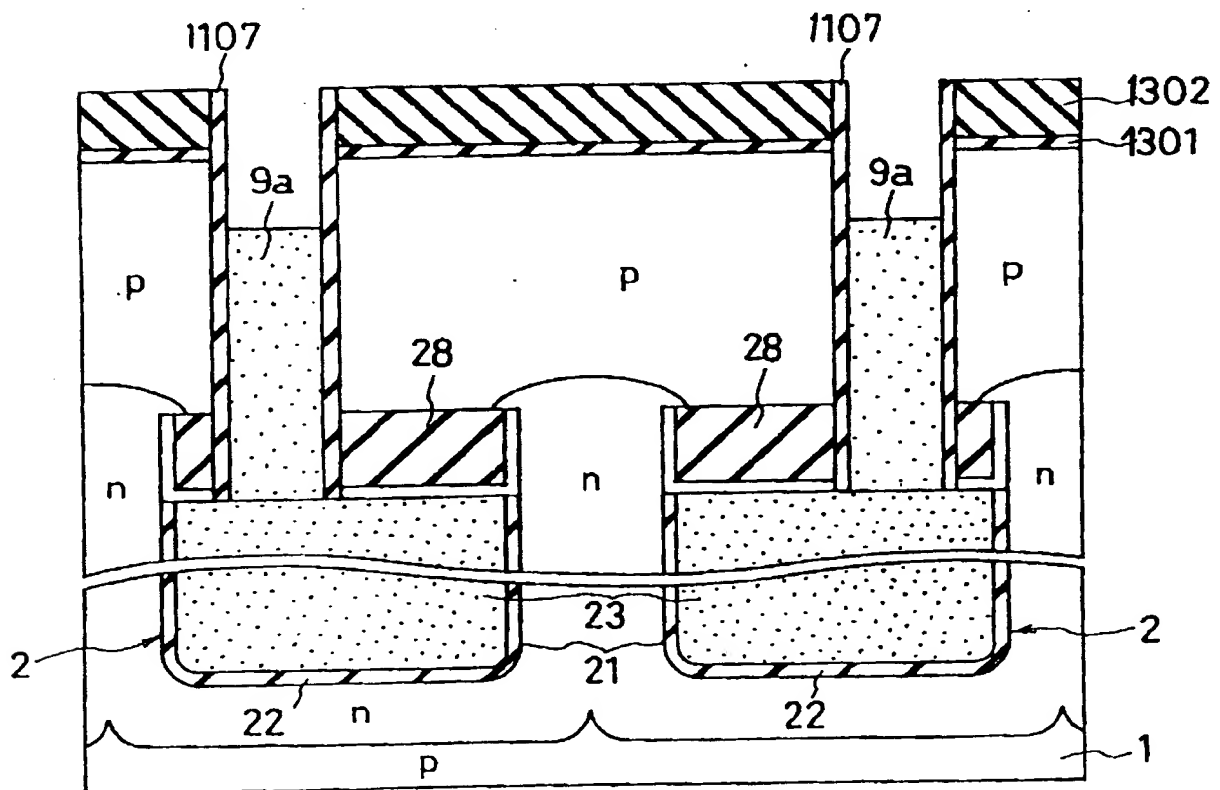


Figure 19B

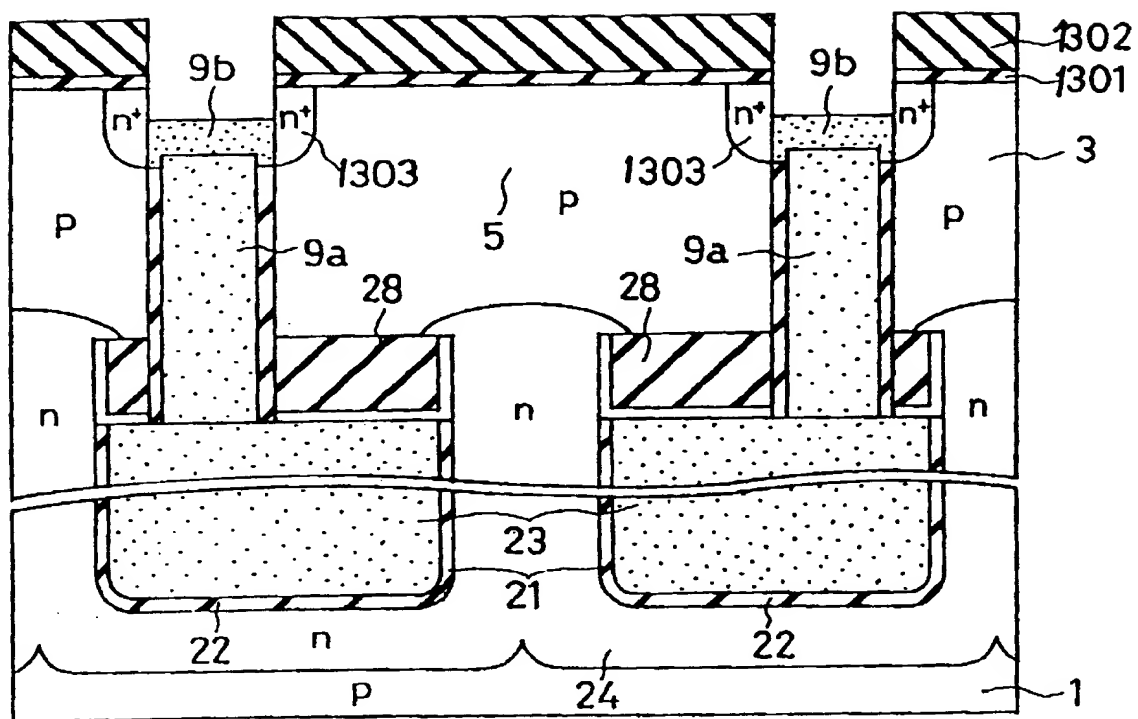


Figure 19C

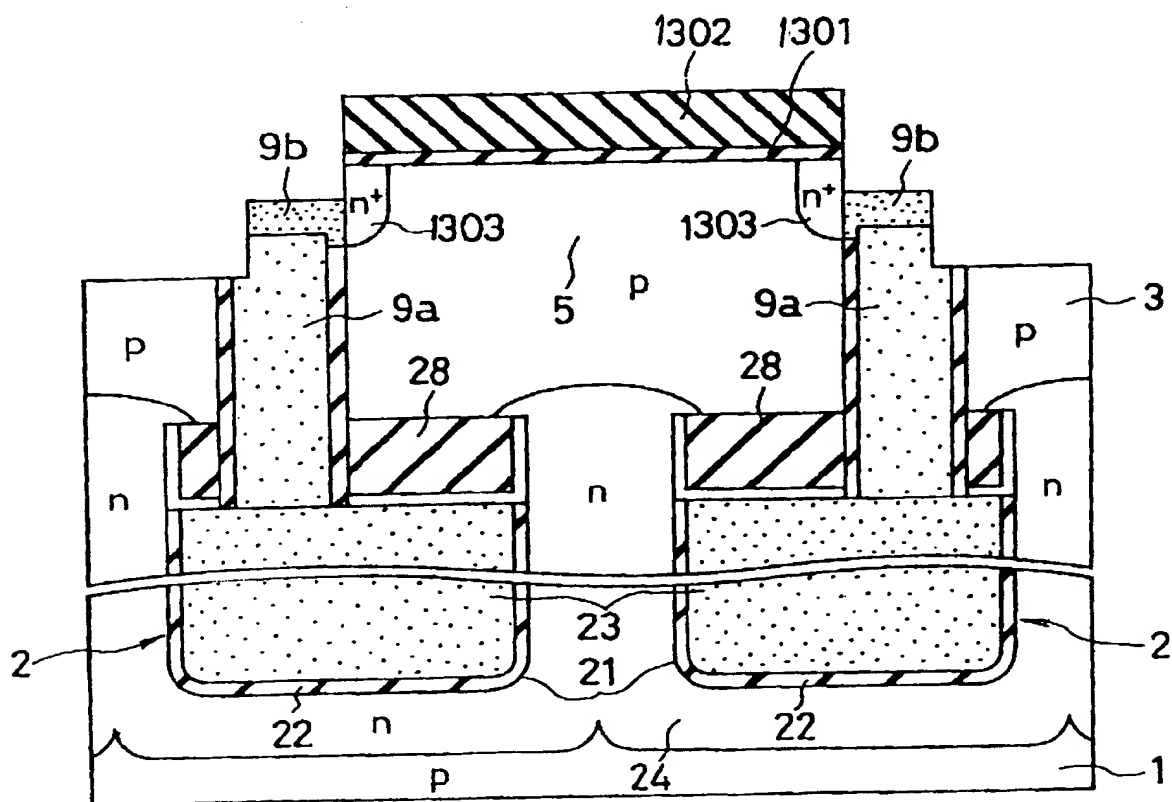


Figure 19D

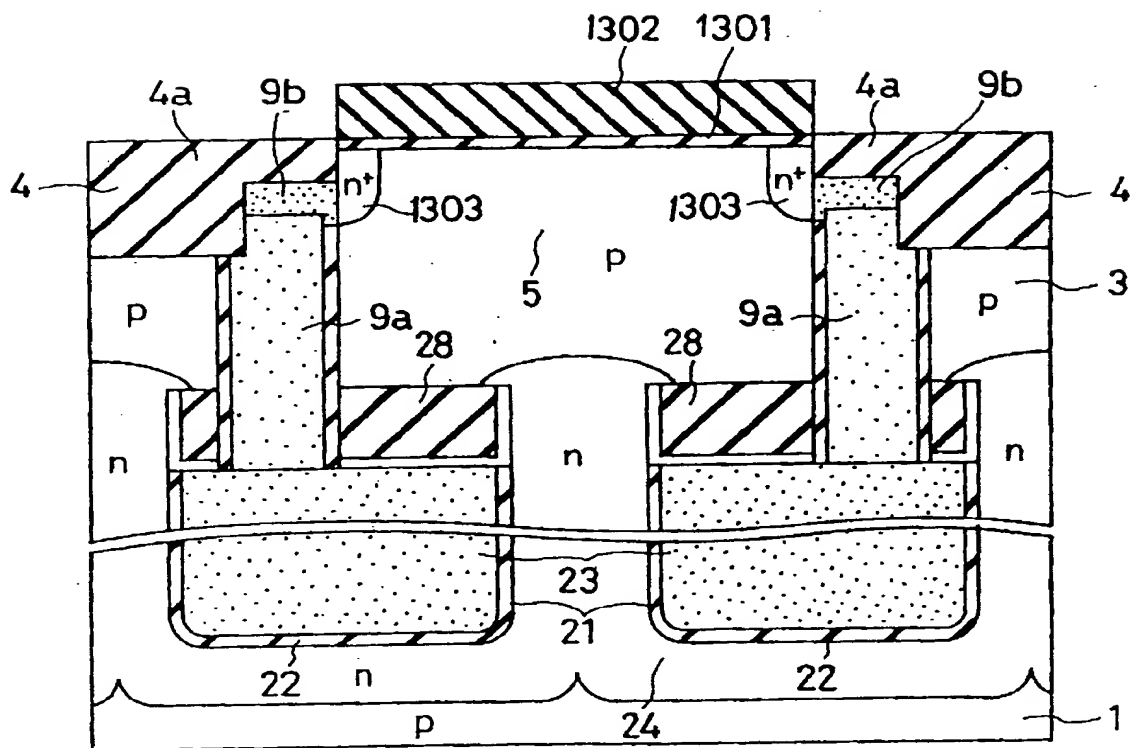


Figure 19E

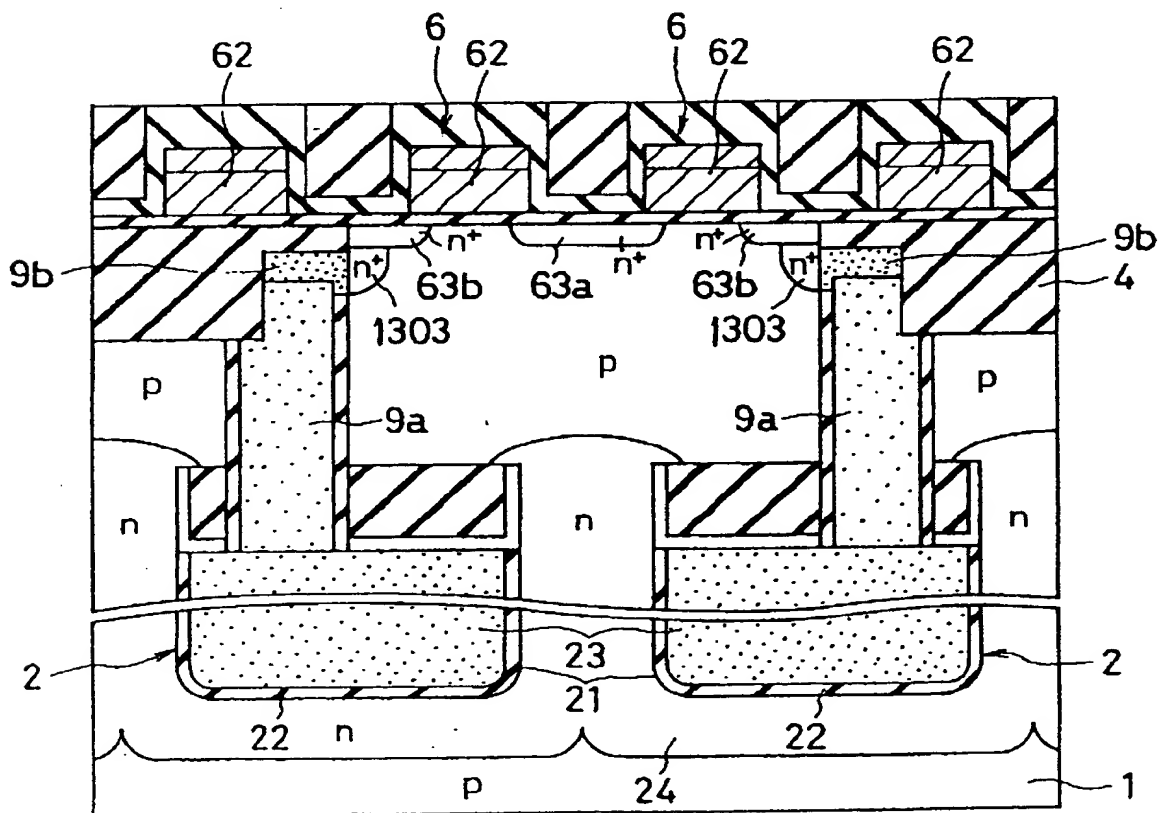


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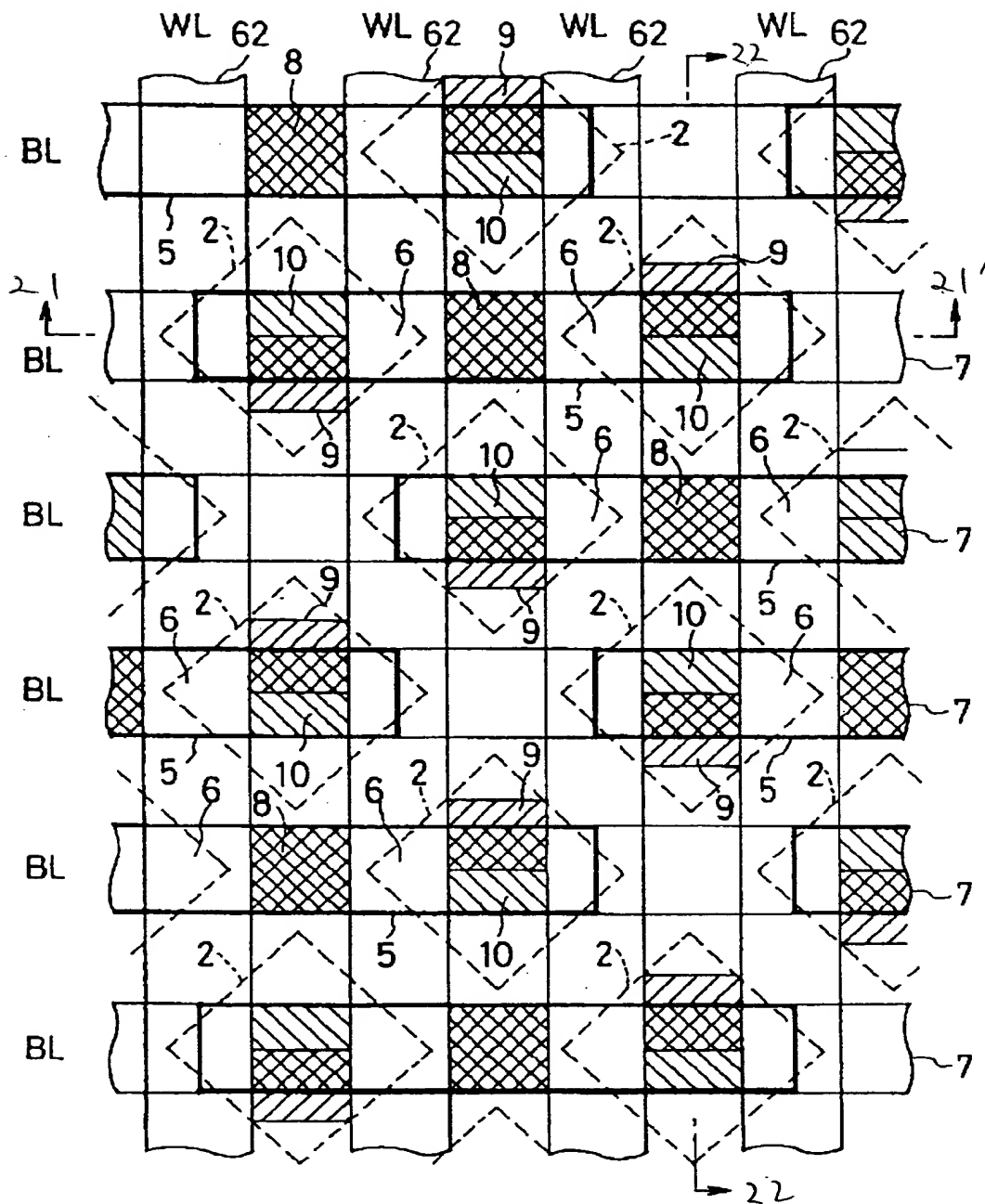


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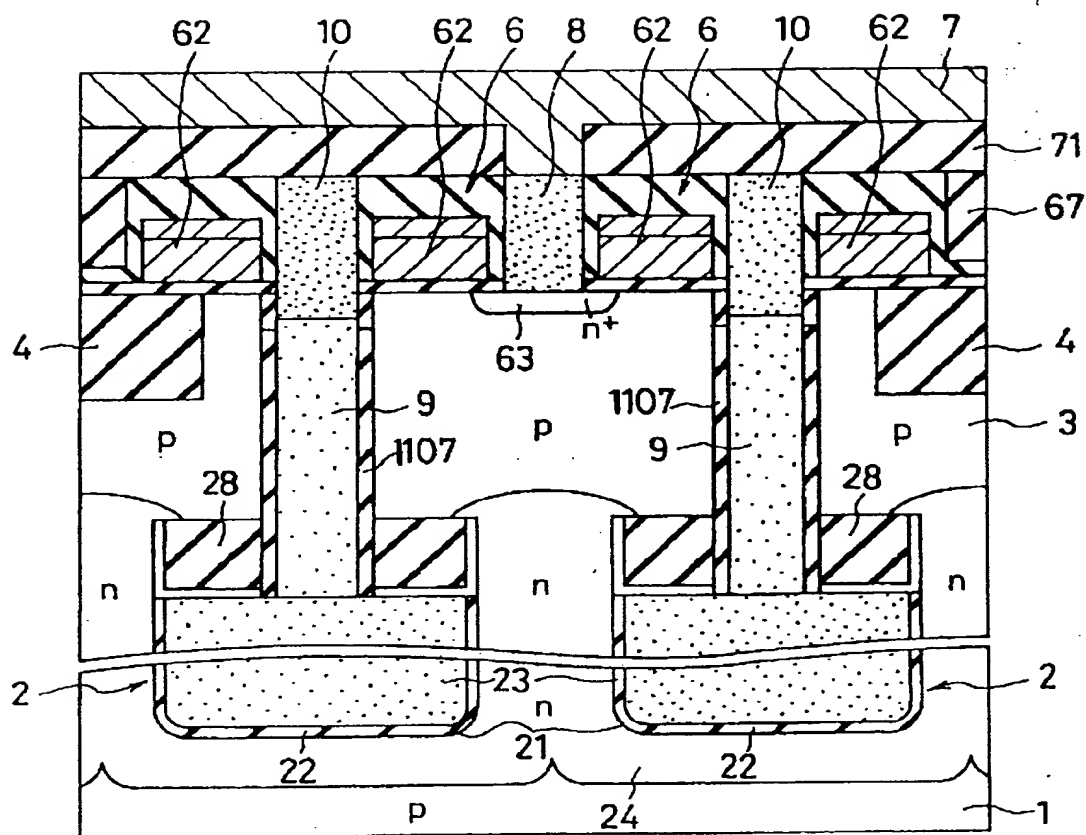


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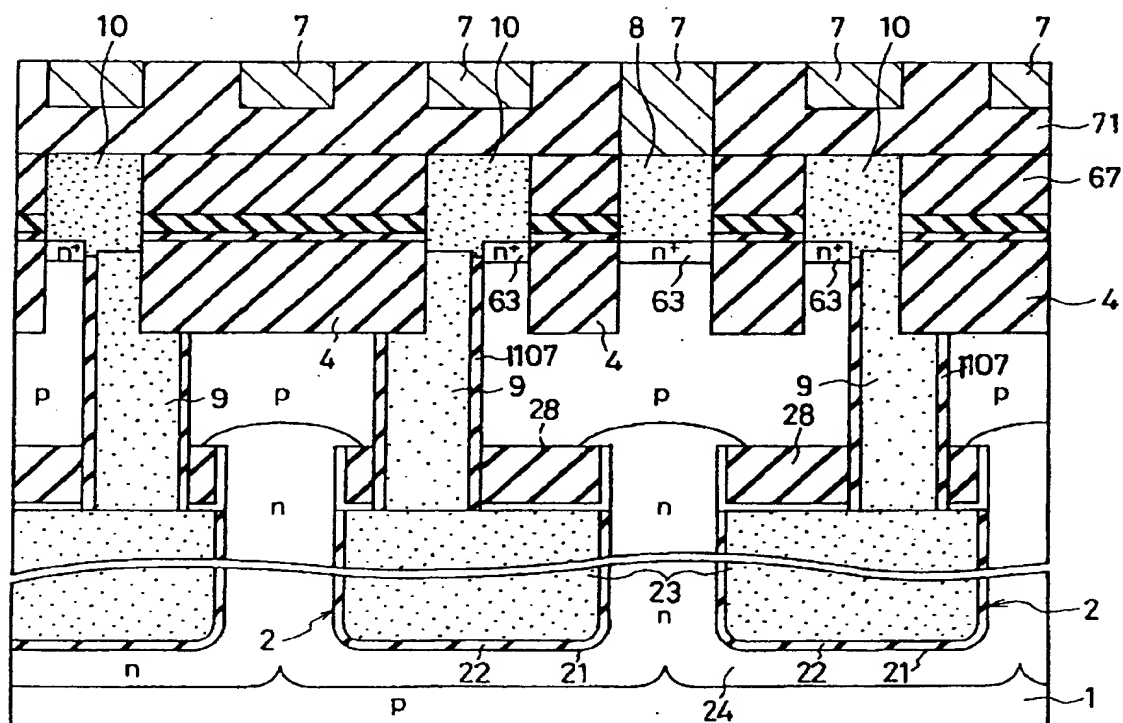


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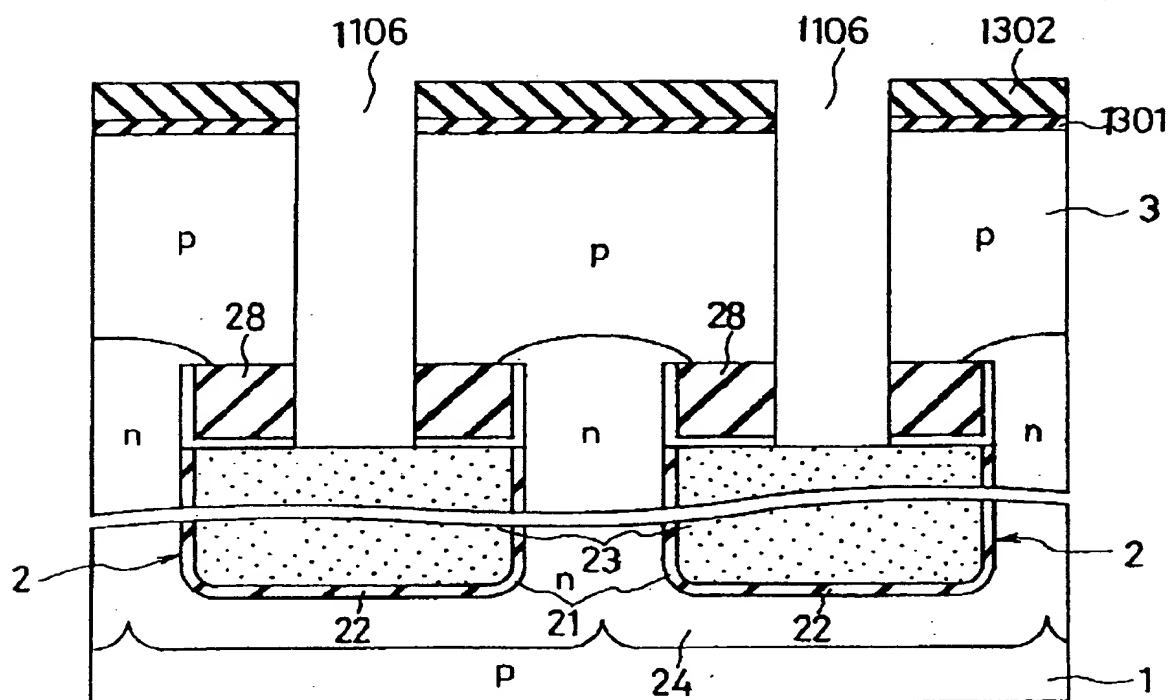


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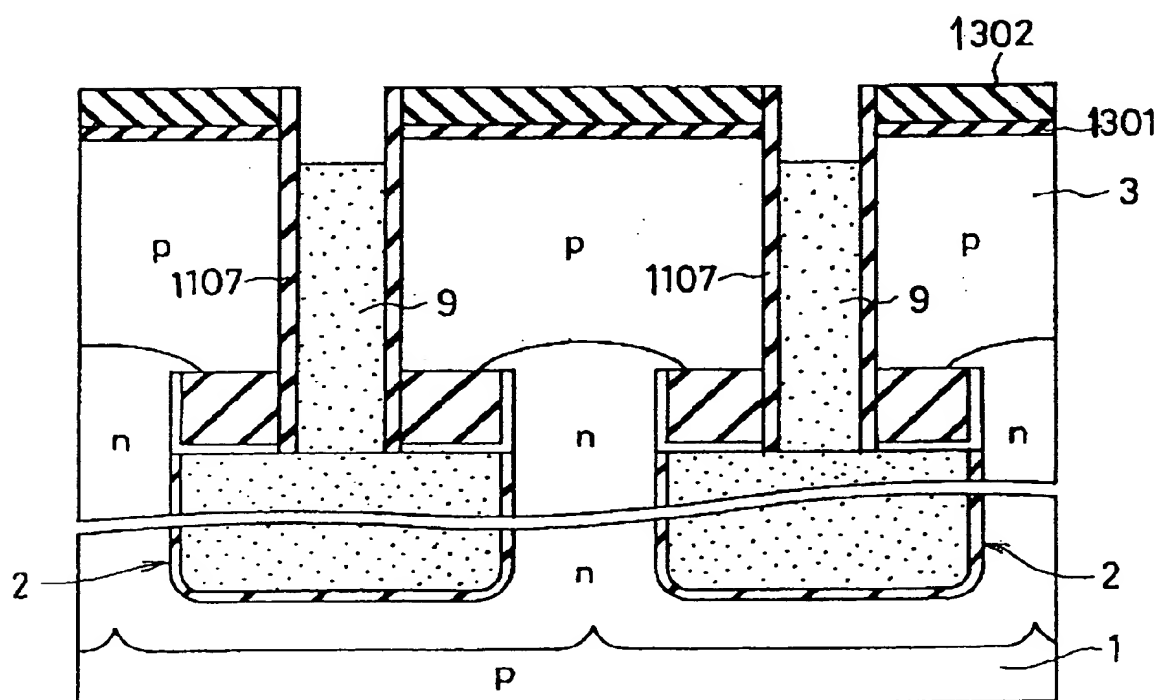


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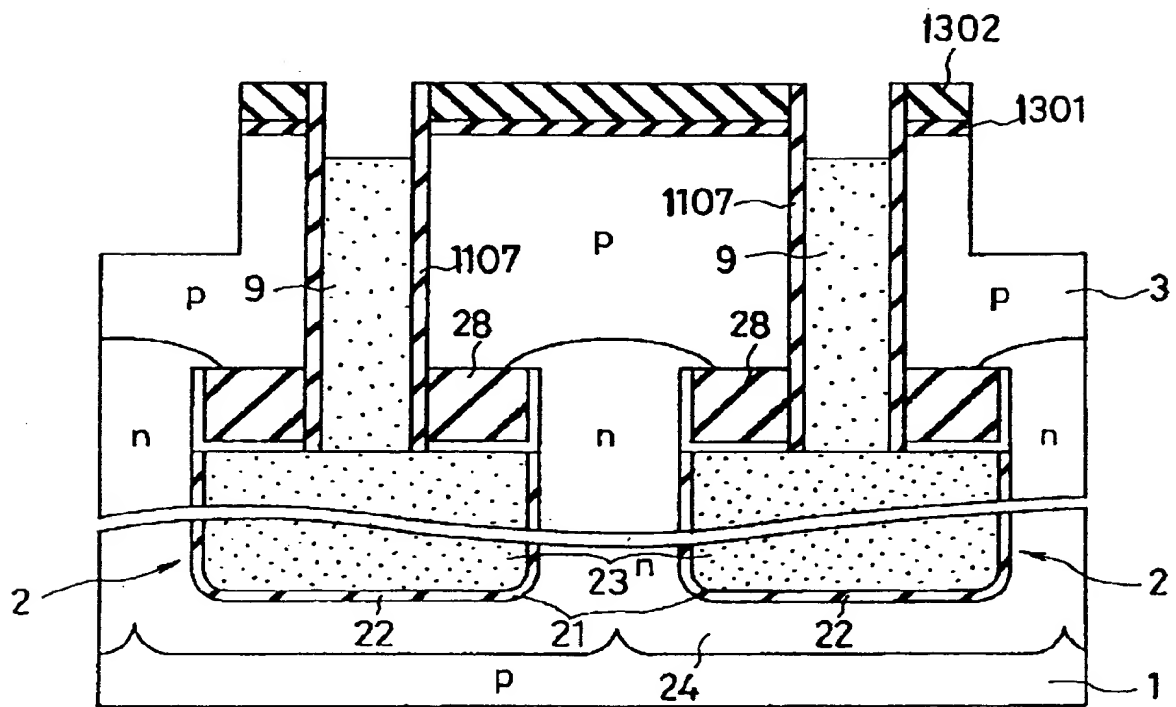


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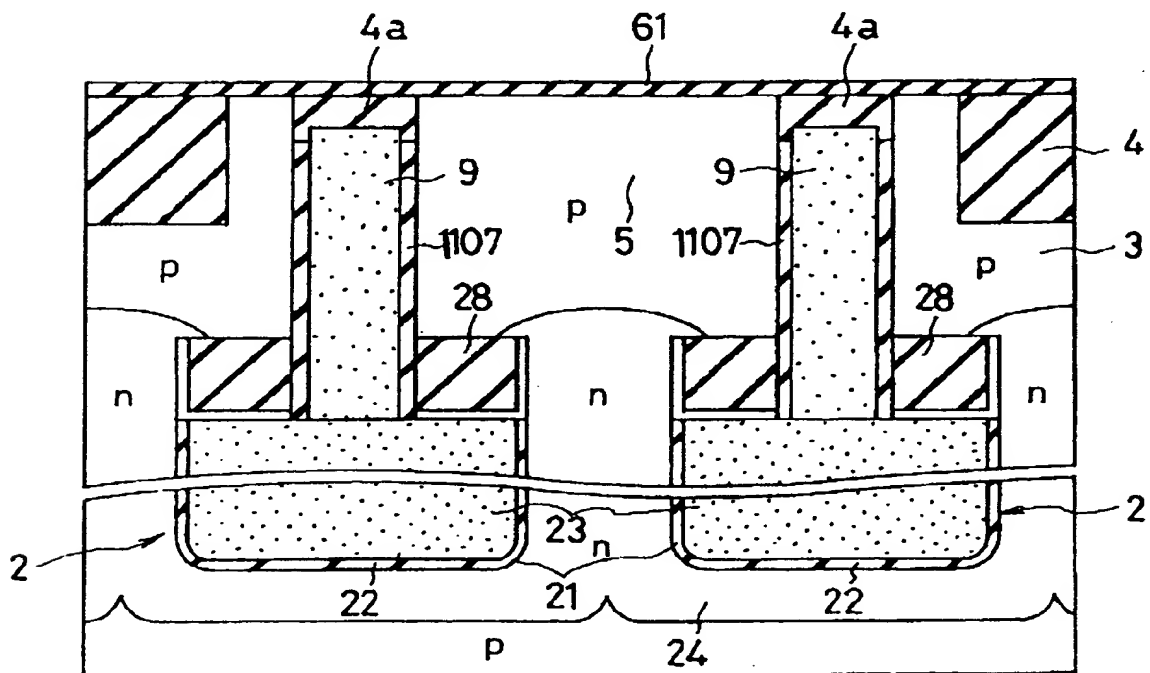


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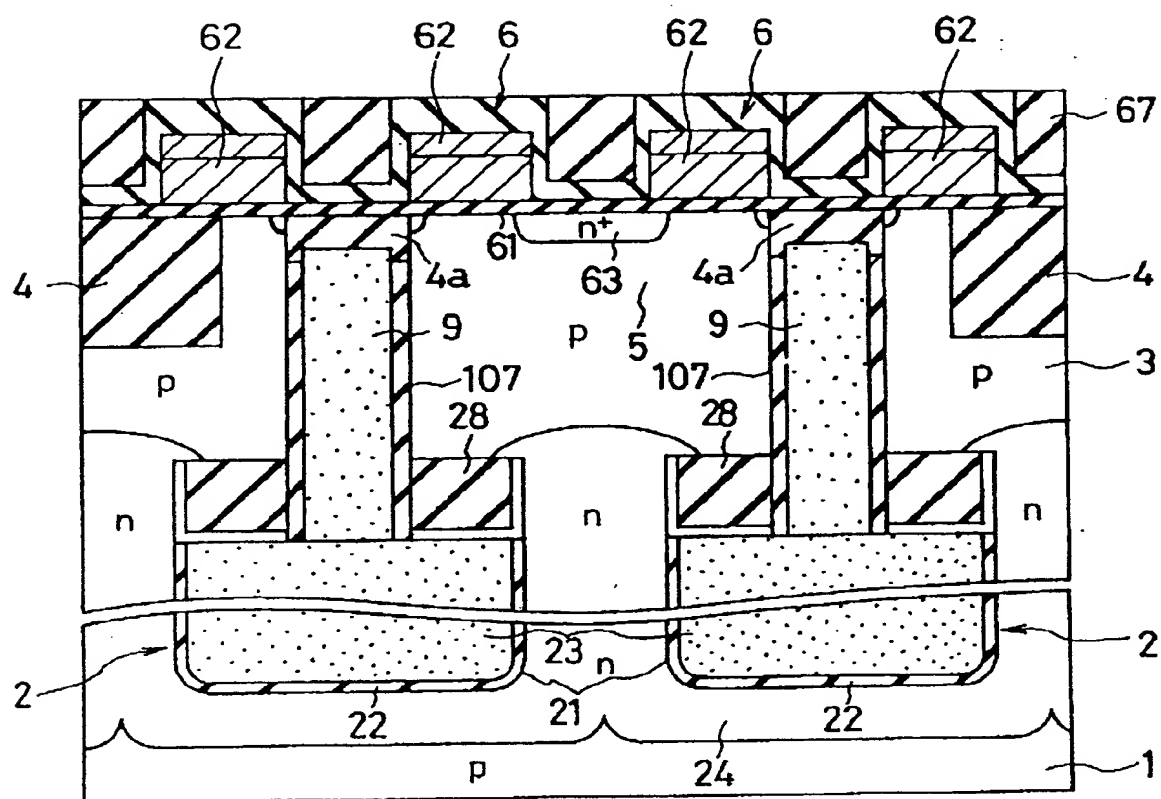


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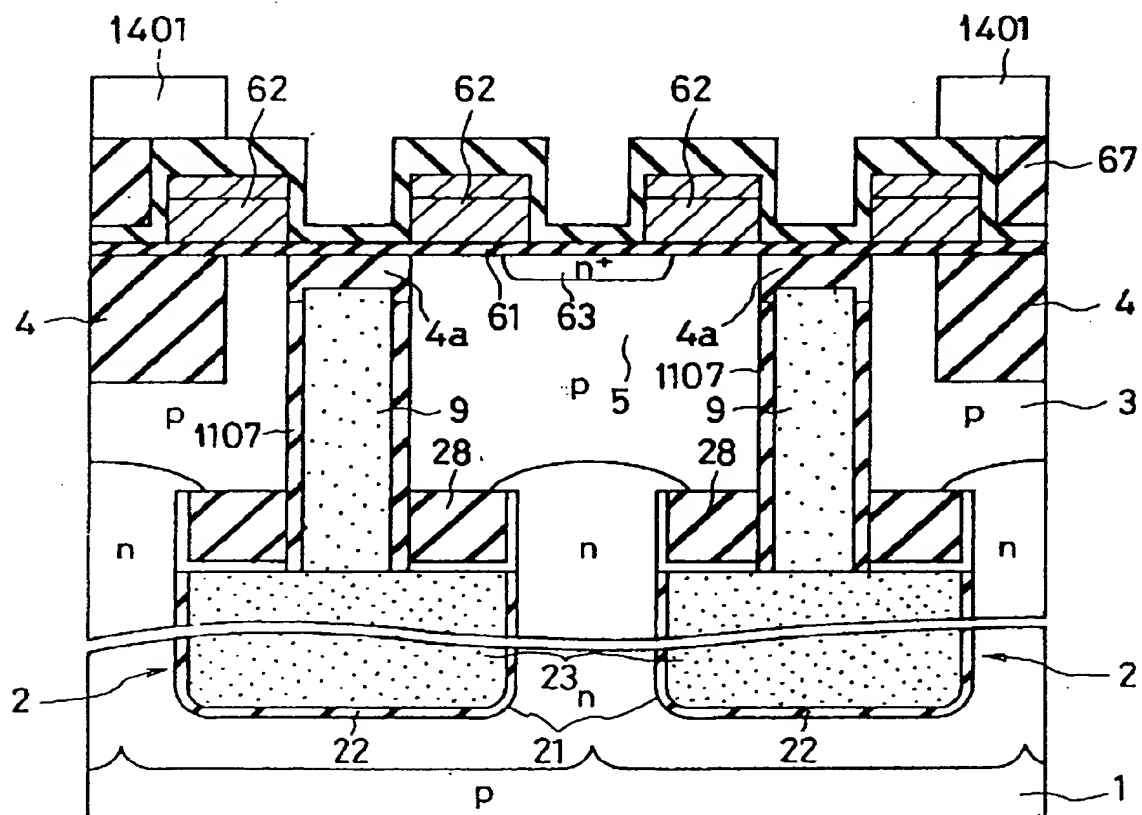


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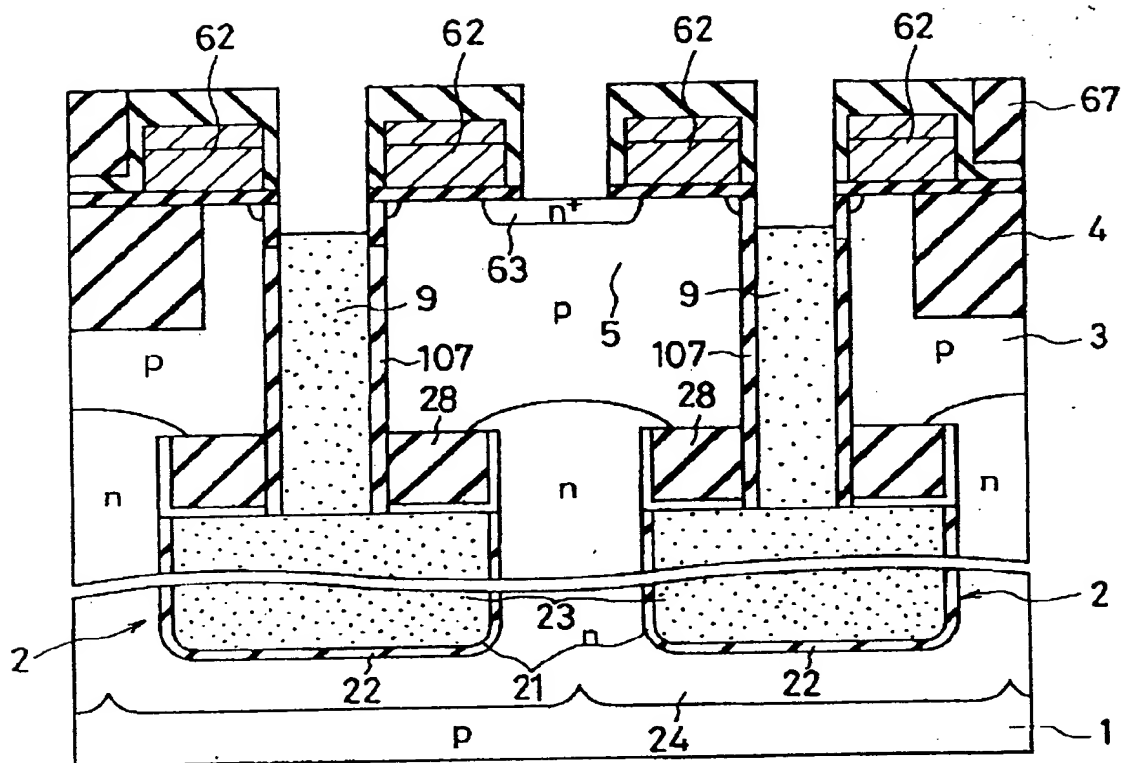


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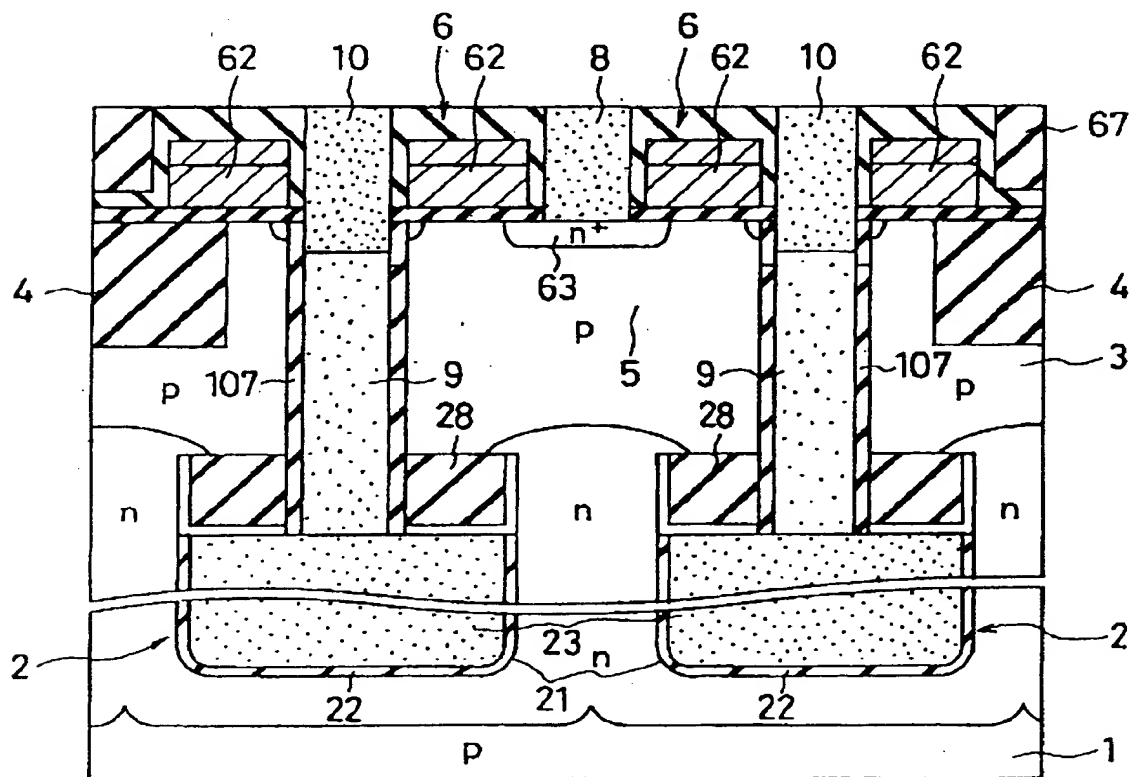


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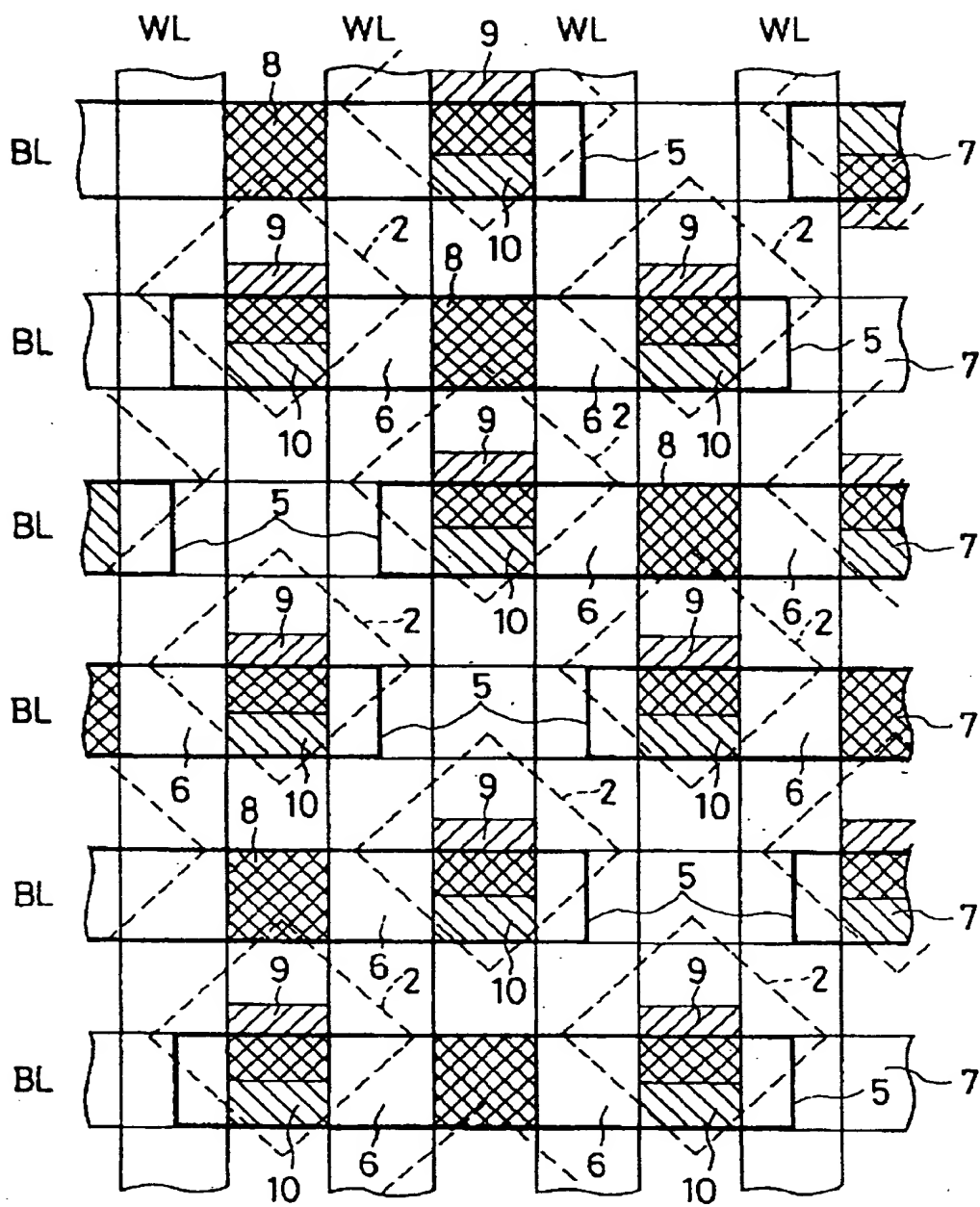


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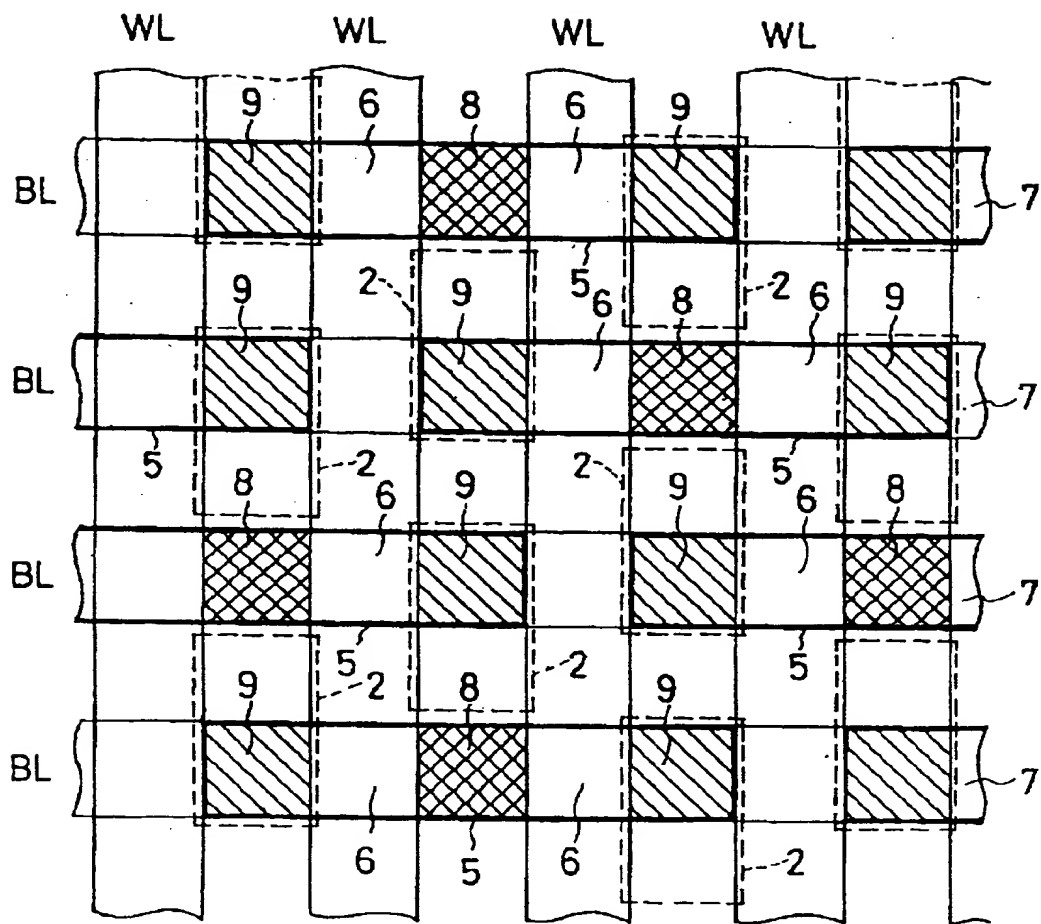


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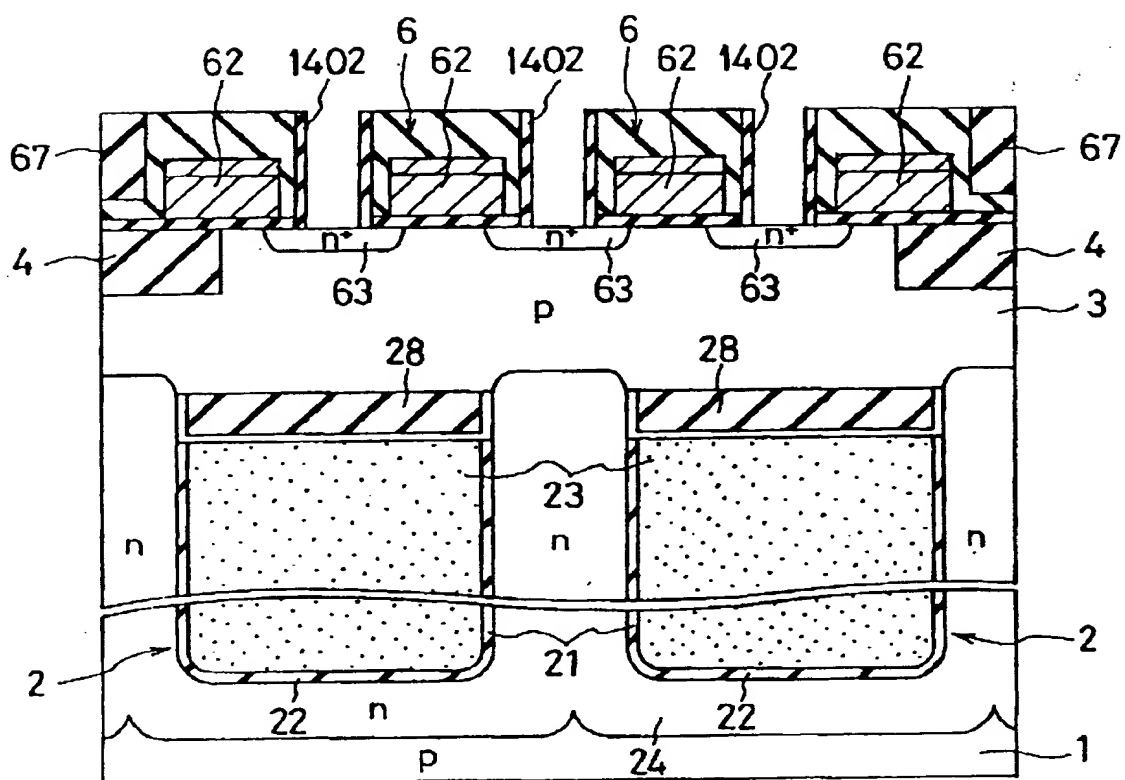


Figure 26A

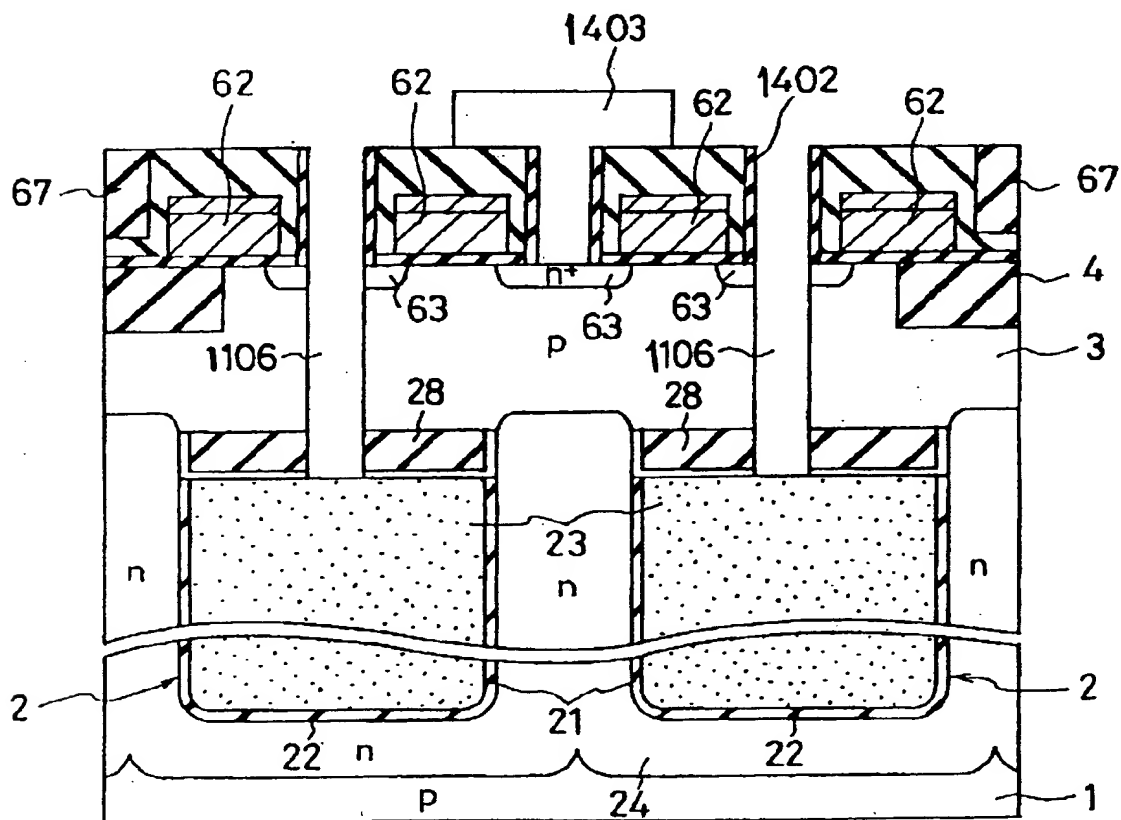


Figure 26B

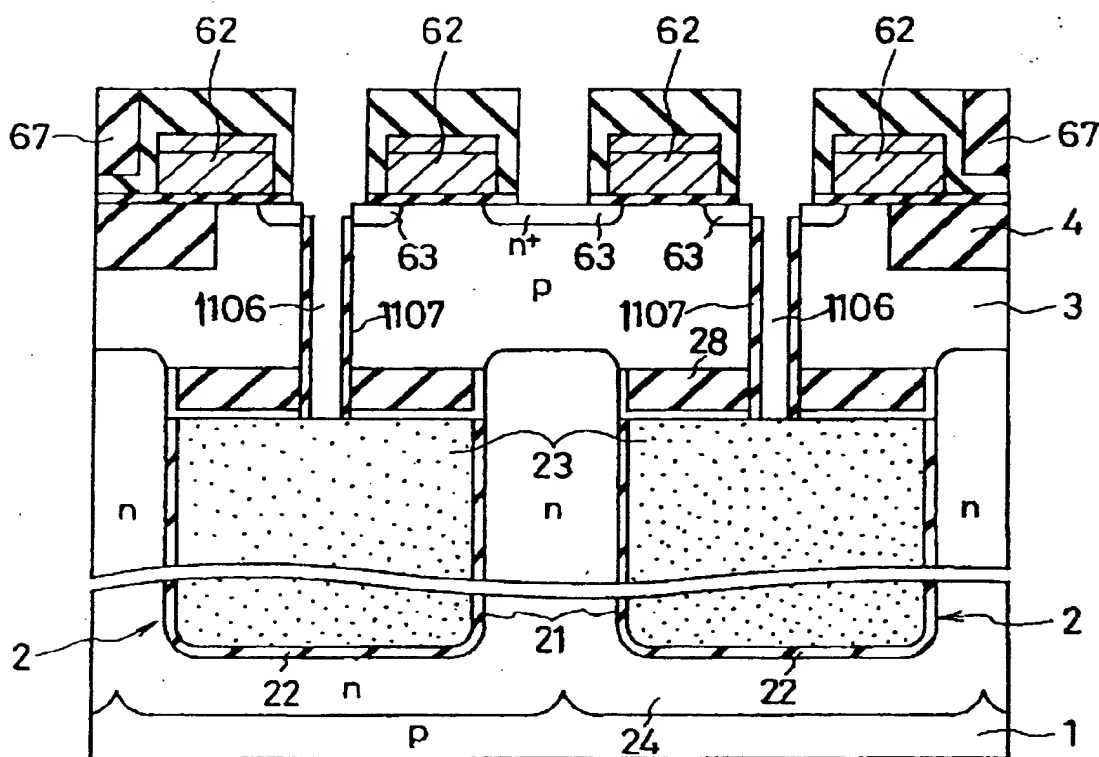


Figure 26C

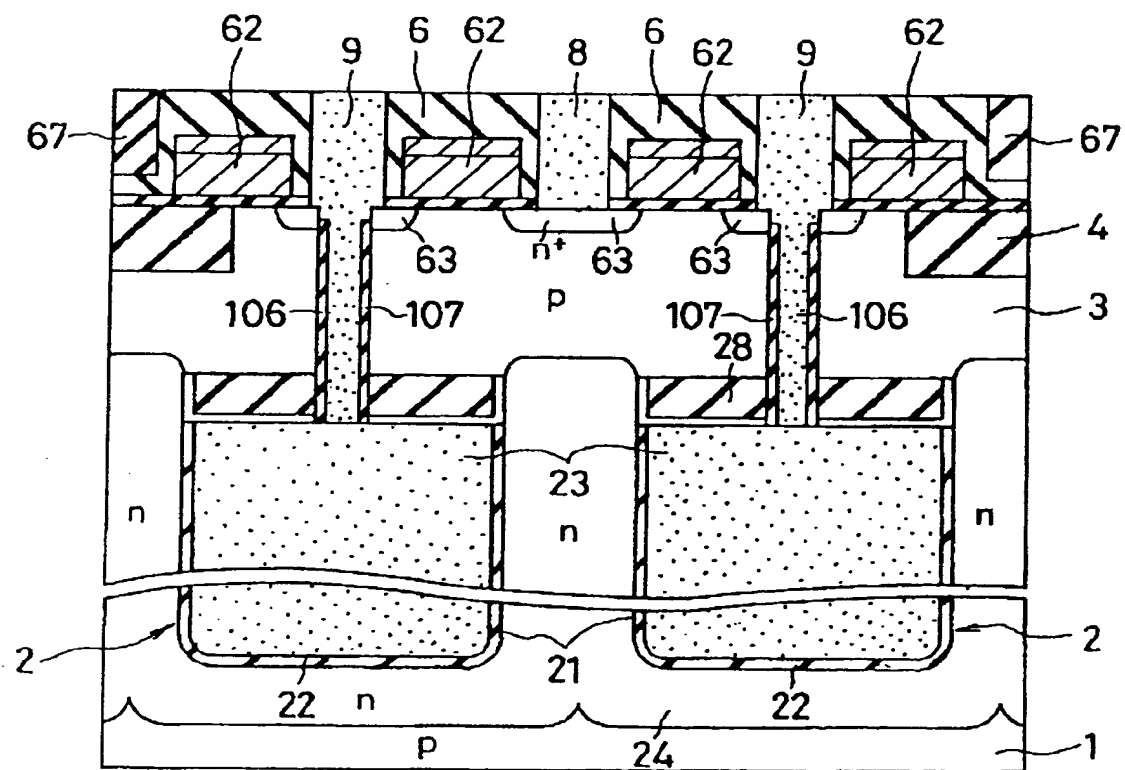


Figure 26D

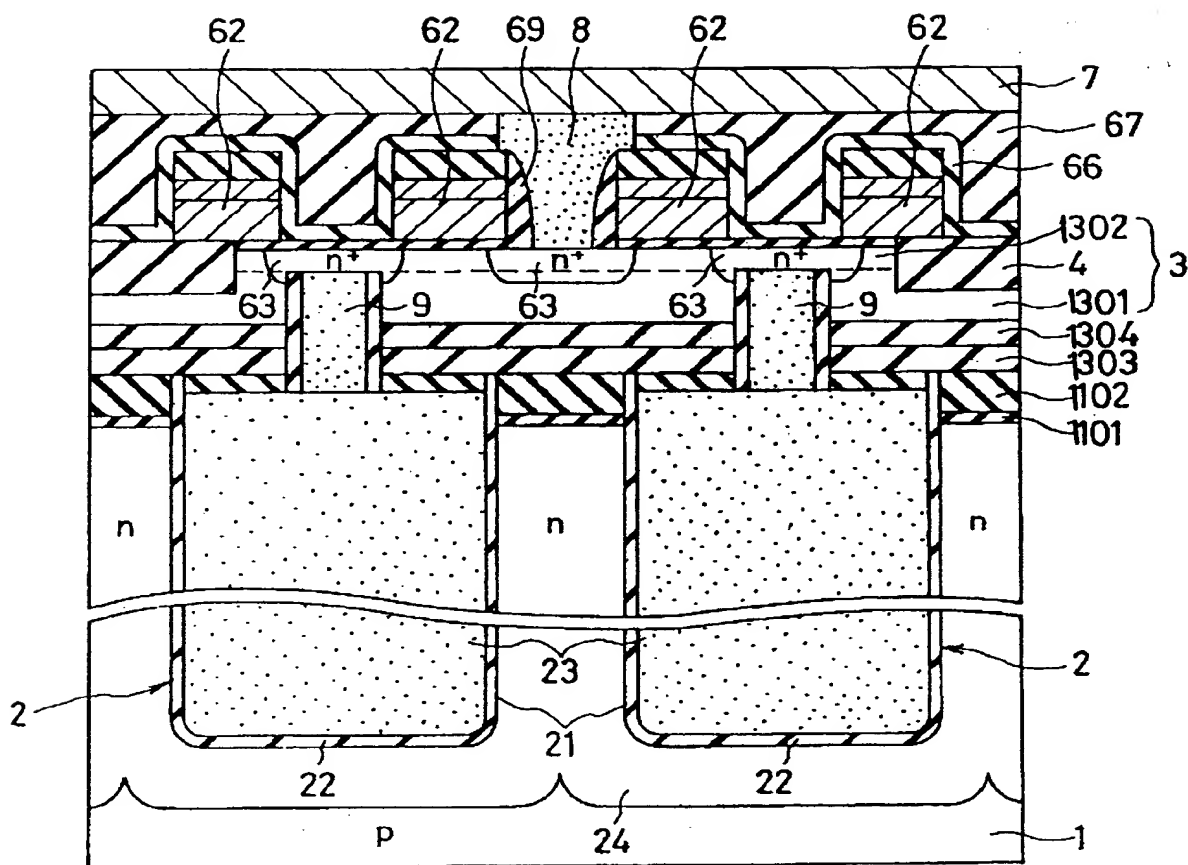


Figure 27

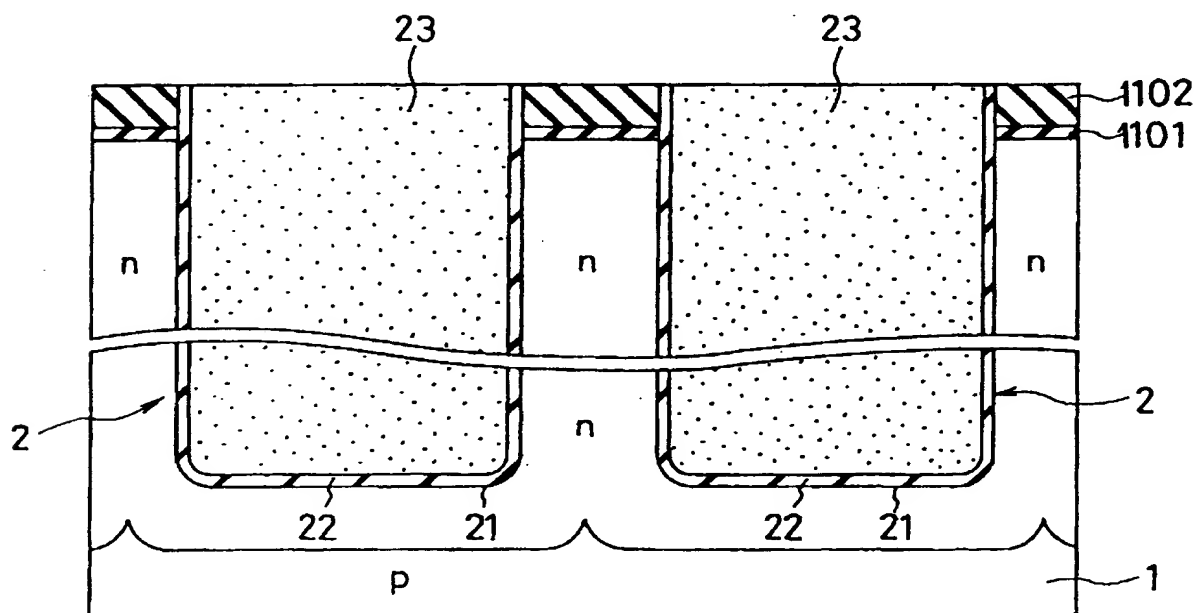


Figure 28A

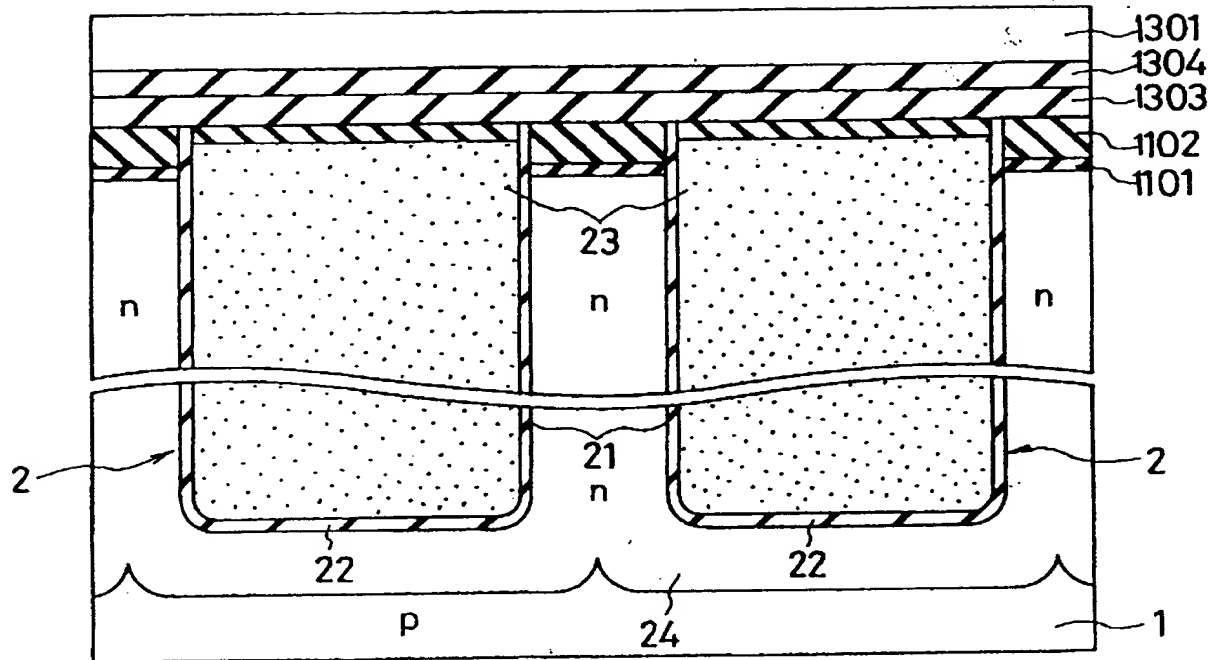


Figure 28B

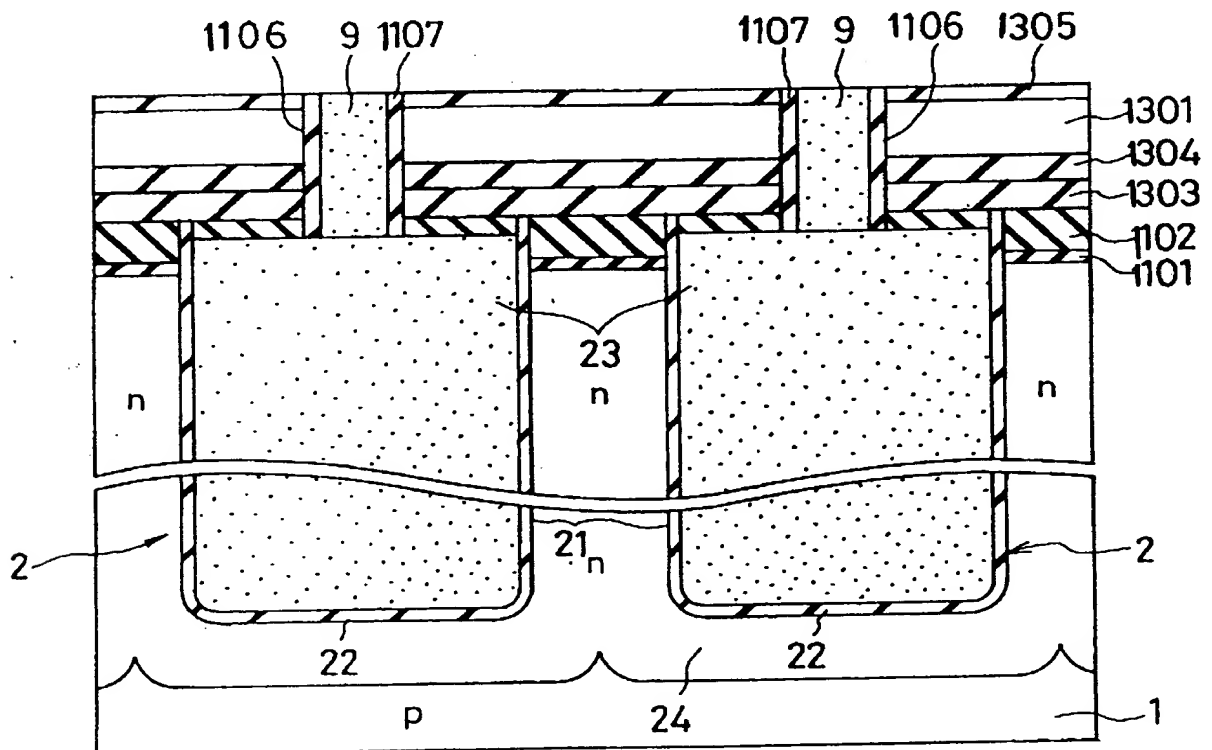


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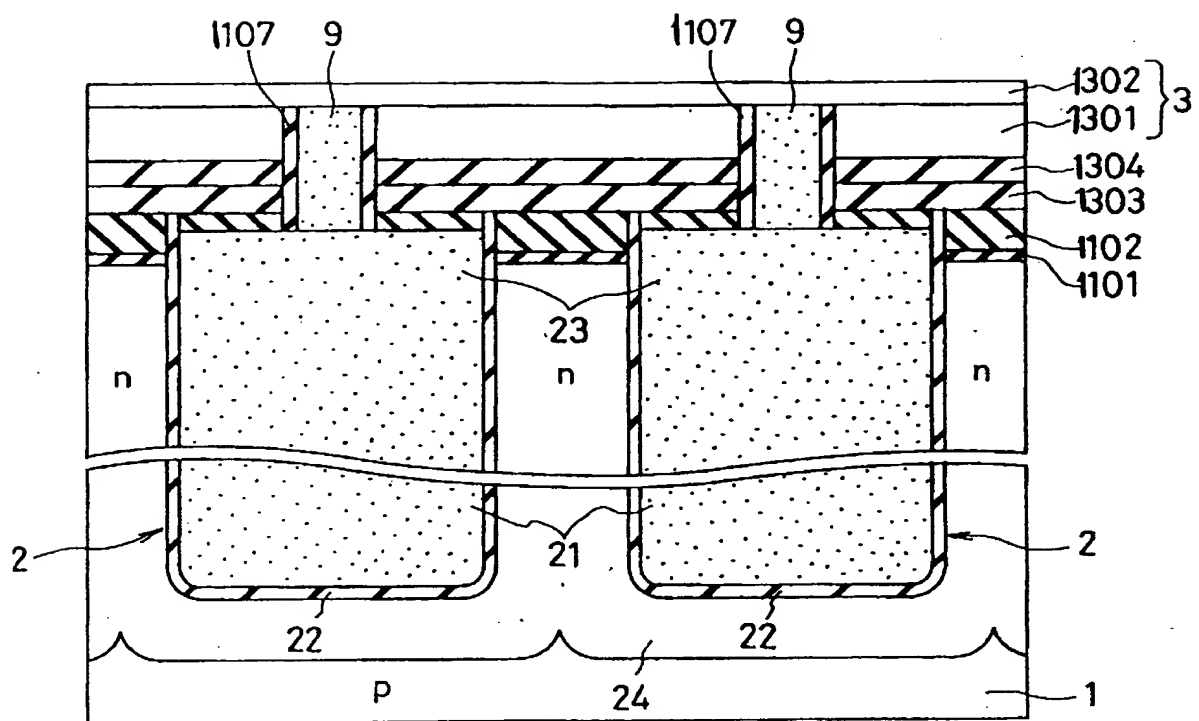


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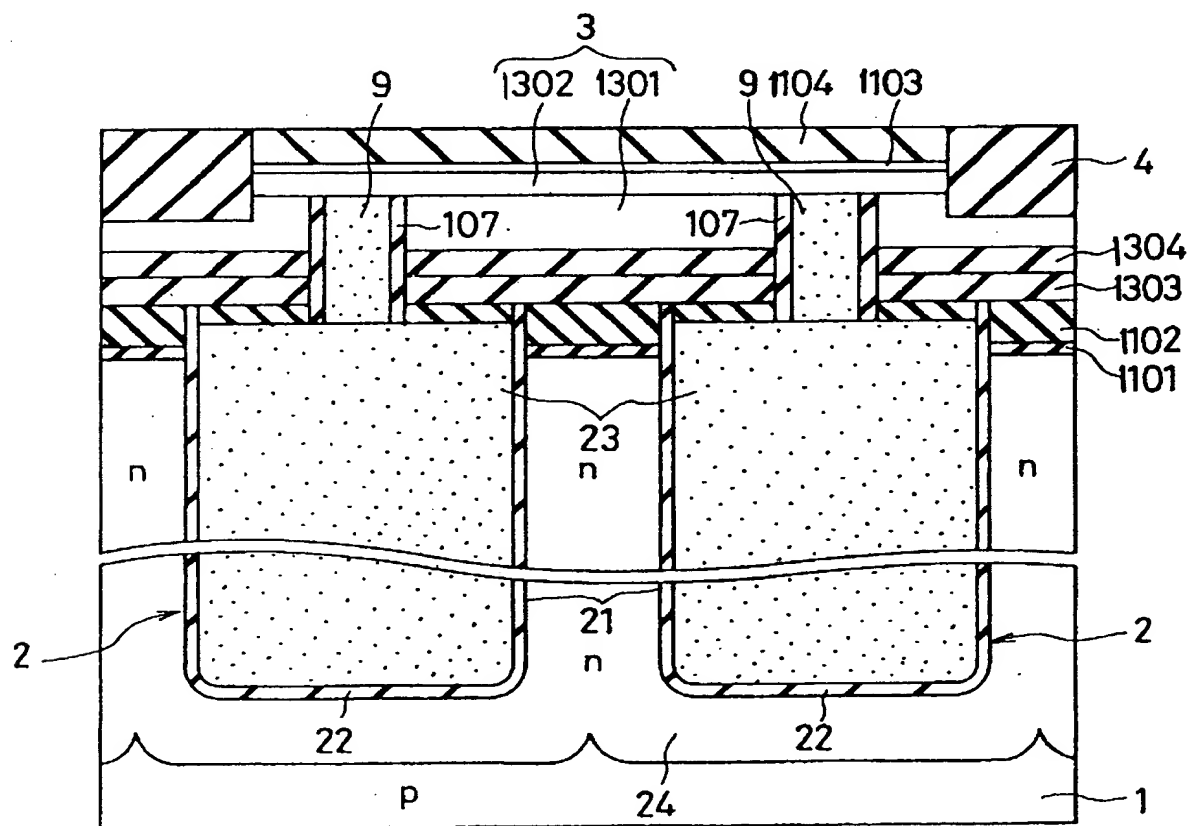


Figure 28E



Figure 28F

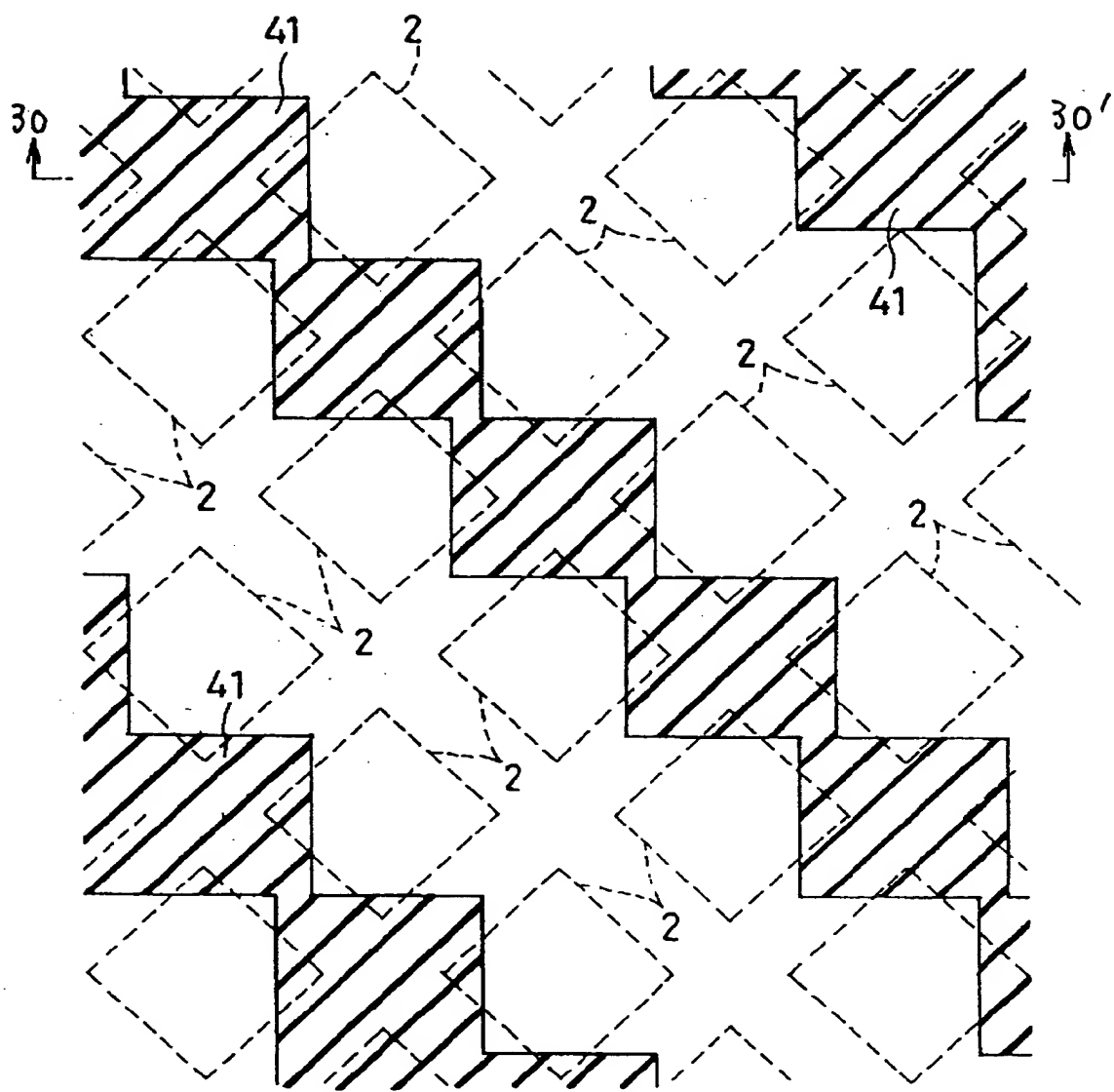


Figure 29



Figure 30

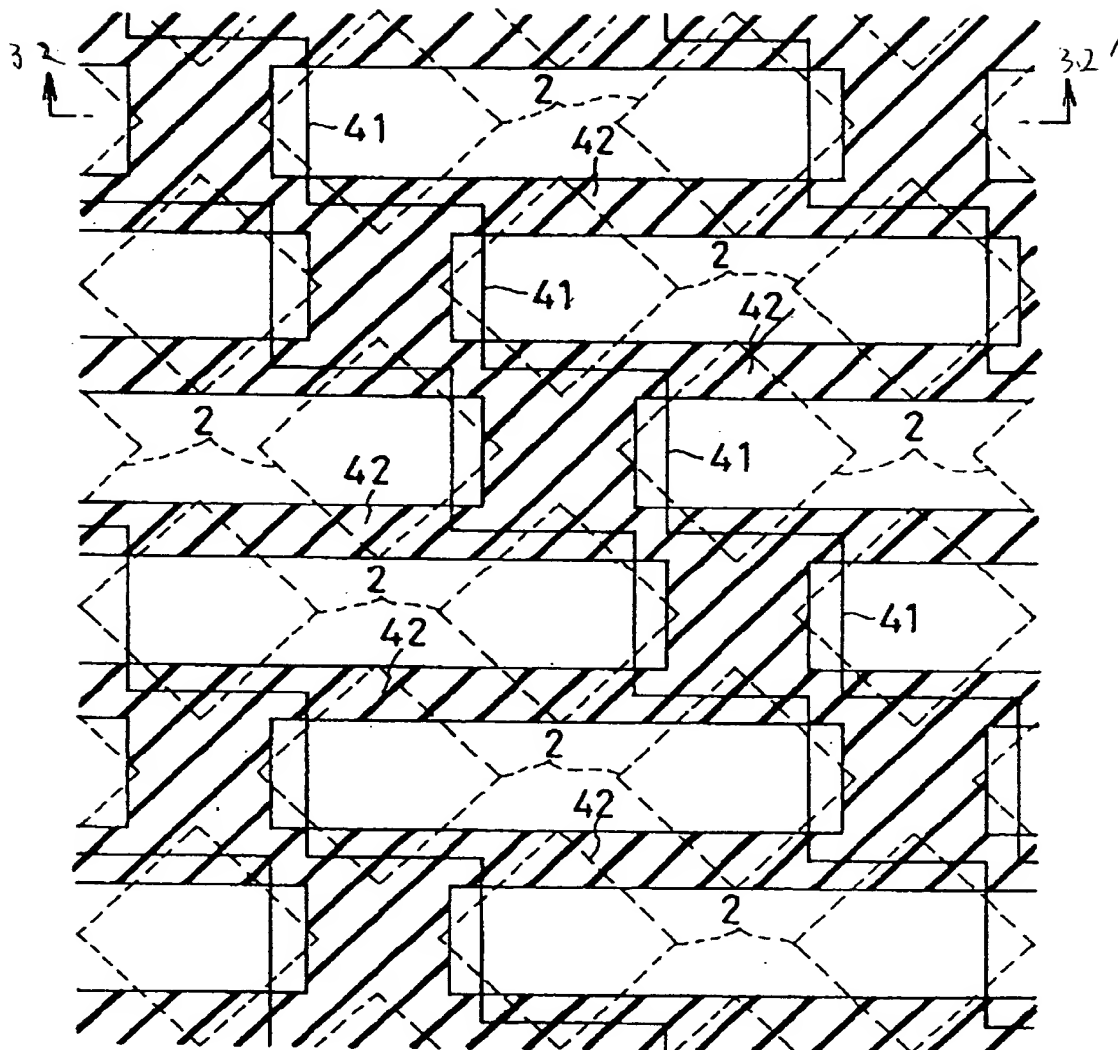


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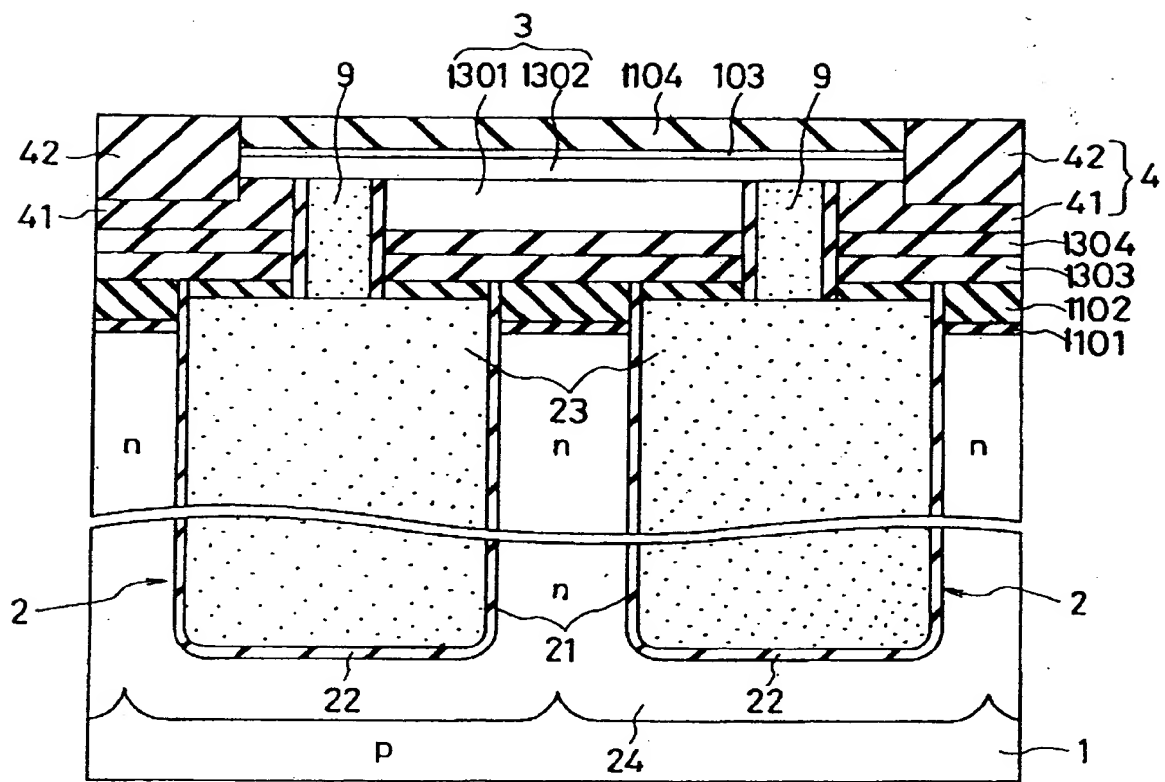


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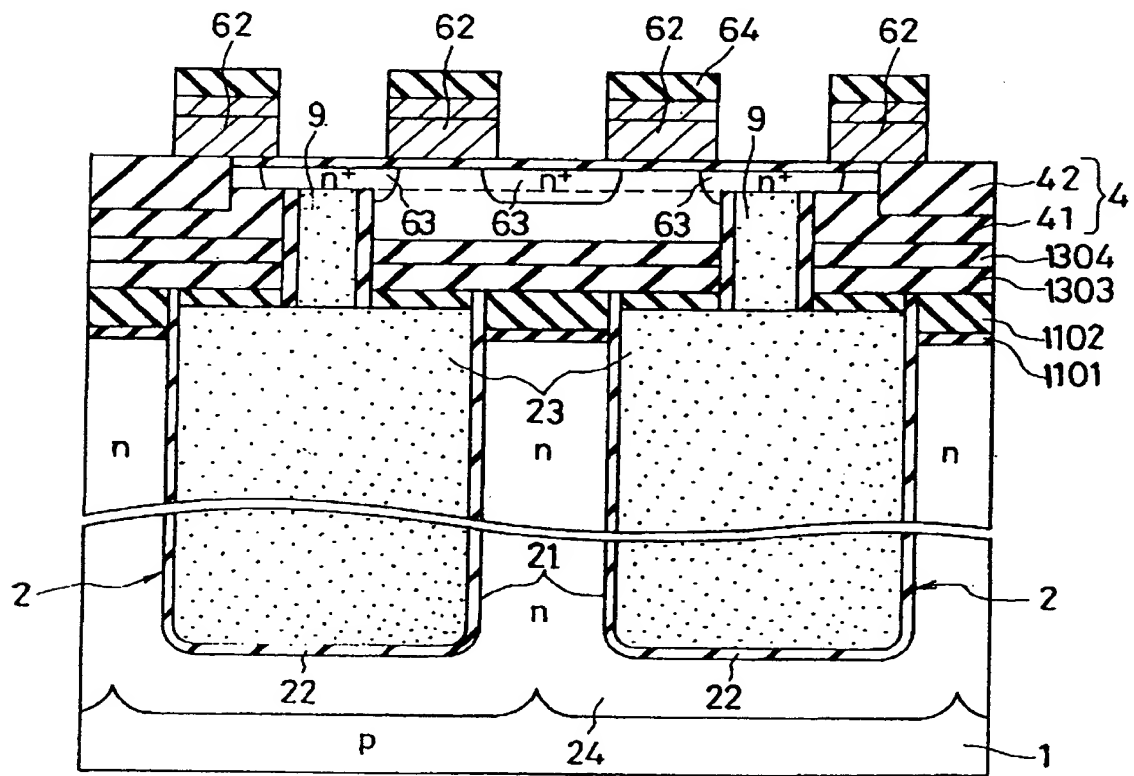


Figure 33